MANAGING PROGRAMMES TO IMPROVE CHILD HEALTH

MODULE 1 Introduction



and can vary with the season. Experienced staff can often provide useful advice.

Transportation

Transportation for primary health-care programmes can include bicycles, motor-bikes, boats, buses and cars. Most programmes need transportation to carry out daily activities. In some programmes, public transportation is used for certain activities, and staff need money for fares. When estimating transportation needs consider:

- Distances (Cars are needed for long distances.)
- Availability of public transportation, the schedule and cost
- Condition of roads (If roads are in poor condition, or non-existent, motor-bikes might be more useful.)
- Amount of travel (How many staff need to travel regularly? How many staff can share vehicles?)
- Renting vehicles (Renting can be cheaper if the vehicles are not needed all the time.)
- Sharing vehicles between programmes to reduce costs

6.3.4 Estimating costs of particular events

Transportation costs need to include estimates of:

- fuel usually estimated as a cost per kilometre driven
- maintenance critical for ensuring that vehicles continue to work.

A budget is also needed for planned meetings, training courses, community events, and other special activities such as adaptation and dissemination of guidelines.

6.3.5 Estimating costs of material resources and special activities

To estimate total costs, first determine the price of each material resource. Sources of prices include:

- Price lists from government supply agencies and/or the MOH (especially relevant if you purchase goods from central level)
- Prices in local shops when you are able to purchase locally
- Prices for medicines and other equipment from national formularies
- Essential medicine lists and in-house purchasing catalogues
- Catalogues from suppliers
- Costs of similar goods purchased recently
- Estimates by suppliers in response to invitation to tender.

The total cost is calculated by multiplying the unit price for each item by the number of items needed. The costs of material resources will appear in the overall budget.

When calculating the total budget for material resources, remember to include costs for:

- maintenance of equipment and buildings
- fuel for transportation
- storage and distribution of medicines and other supplies.



EXERCISE L – Estimate resource needs

In this exercise you will estimate resource needs including:

- Part 1: Human resource needs for a district health centre
- Part 2: Medicine needs and costs for treating pneumonia with standard case management in first-level health facilities in a region.

Part 1: Estimate human resource needs for a district health centre

The programme manager of the Coastal Region of Integratia is visiting a district-level health centre. She wants to estimate the staff needed for child health services. She talks to the facility manager and to health workers. They all say that more staff are needed. She collects information on the number of staff available now, and on case-load. She asks staff to estimate how long it takes to see different cases. At the end of her visit, she decides that no more staff are needed.

Do you agree with her? Use the data below and make your own analysis of whether additional staff are needed.

Current staff	Current roles
Nurses – 3	Sick child care (IMCI), deliveries, postnatal care for mothers and newborns, sick adult care
Health assistants – 1	Vaccinations, well-child screening, antenatal care
Pharmacist – 1	Medicine management and dispensing
Records manager – 1	Maintains records, manages finances, completes routine reports

Average number of cases per day (last 12 months):

Sick adults – 10	Sick children – 20
Well-child screening – 5	Vaccinations – 10
Antenatal visits – 5	Deliveries – 1
Postnatal care – 3	

Clinic sessions: 0800–1400 (6 hours)

Estimated time required to see each patient:

Sick adults – 20 minutes	Sick children – 30 minutes (using IMCI with counselling)
Well-child screening – 15 minutes	Vaccinations – 10 minutes
Antenatal visit – 15 minutes	Deliveries – variable (3 hours)
Postnatal care – 30 minutes	

1. Use the information on the previous page to complete the estimation of time needed to see patients below:

Average total time required per day to see patients:
sick child care =
well-child screening =
vaccinations =
antenatal visits =
postnatal care =
deliveries =
care of sick adults =
Total time that must be spent by nurses to see the case-load =
Total time that must be spent by health assistant to see the case-load =
Total time available: 3 nurses in a 6 hour session =
Total time available: 1 health assistant in a 6 hour session =

- 2. Do you think more staff are needed at this district health centre, or not?
- 3. Did your answer above consider that the nurses may have duties and responsibilities beyond seeing patients?

They must supervise the health assistant, coordinate with the pharmacist, and do several other things. List below some of the additional responsibilities that may occupy their time:

- •
- -
- •
- -
- •

4. What is your conclusion about whether additional staff are needed? Do you agree with the manager of the Coastal Region? Why or why not?

Part 2: Estimate medicine needs and costs for treating pneumonia with standard case management at first-level health facilities

In this part, you will estimate the amount of co-trimoxazole needed in the region to treat childhood pneumonia at first-level health facilities with standard case management and estimate the cost.¹⁰ Use the following information to complete the worksheet for Integratia.

Read the following information:

- It is the end of 2007. The manager of child health in the Coastal Region of Integratia is estimating medicine needs so that she can inform the essential medicines programme.
- The population of the Coastal Region of Integratia is about 5 000 000. About 15% of the population is under 5 years of age.
- There is no information on the incidence rate for pneumonia in Integratia, so the manager will use the global incidence rate for childhood pneumonia which is 0.26 episodes per child under age 5 per year.¹¹
- The coverage target set by the national level is:

By 2010, 70% of children under 5 with pneumonia will receive an oral antibiotic

• The child health manager set a target for 2008 for the Coastal Region:

50% of the population will have access to standard case management for pneumonia at health facilities and referral facilities and will come when the child is sick with *ARI*.

• Using the global estimates of the incidence of severe pneumonia and the medicine policies and guidelines of the child health programme, the child health manager decided that:

¹⁰ This exercise and worksheet does not include costs of management of severe cases as inpatients or management of pneumonia cases in the community. The WHO cost-estimation tool for child health includes a format that includes these costs in addition to those for treating pneumonia at first-level facilities. It is shown in Annex E.

¹¹ Global incidence rate for pneumonia (total) = 0.26 episodes per child-year (about 156 million new cases per year). Global incidence rate for pneumonia (severe) is about 8.7%. (7-13% of the total number of cases are estimated to be severe pneumonia.) References:

Rudan I, Tomaskovic L, Boschi-Pinto C, Campbell H; WHO Child Health Epidemiology Reference Group. Global estimate of the incidence of clinical pneumonia among children under five years of age. *Bulletin of the World Health Organization* 2004; 82:895-903.

Rudan I, Boschi-Pinto C, Bloglav Z, Mulholland KE, Campbell H. The Epidemiology and aetiology of childhood pneumonia. *Bulletin of the World Health Organization* 2008; 86:408-16.

0.91 of all cases of pneumonia would be uncomplicated pneumonia that could be managed at first-level health facilities with oral antibiotics according to standard case management.

• The cost per tablet of co-trimoxazole in Integratia is \$0.025

Refer to the information above as needed to complete the worksheet on the next page.

WORKSHEET: Estimating Medicine Needs and Costs for Treating Pneumonia at First-level Health Facilities

A. ESTIMATE THE NUMBER OF CHILDHOOD PNEUMONIA CASES (UNCOMPLICATED) THAT CAN BE TREATED WITH STANDARD CASE MANAGEMENT AT FIRST-LEVEL HEALTH FACILITIES

A-1 Estimate the number of children under 5 years of age in the region

population of the regionproportion of the population under 5nu in	number of children under 5 n the region

A-2 Estimate the expected cases of childhood pneumonia per year

X		=
number of children in	incidence of pneumonia	number of childhood pneumonia
the region	in children	cases per year

A-3 Estimate the number of childhood pneumonia cases who will have access and will come for treatment

ber of childhood pneumonia s who will have access and come for treatment
;

A-4 Of the childhood pneumonia cases who will come for treatment, estimate the number that will be given **standard case management of pneumonia at first-level health facilities**

	X	=
number of childhood pneumonia cases who will come for treatment	proportion of cases that could be treated with standard case management for pneumonia at first- level health facilities	number of cases to be given standard case management of pneumonia at first-level health facilities

B. ESTIMATE QUANTITIES OF MEDICINES NEEDED FOR TREATING CHILD PNEUMONIA CASES WITH STANDARD CASE MANAGEMENT AT FIRST-LEVEL HEALTH FACILITIES

For cases (aged 2 months to 5 years) to be given standard case management of pneumonia, plan to provide co-trimoxazole, in paediatric tablets. The average dose for children 10-14 kg is 4 tablets (20 mg trimethoprim + 100 mg sulfamethoxazole) per day for 5 days, or 20 tablets per case.

number of child pneumonia cases to be given standard case management at firstlevel health facilities

C. ESTIMATE QUANTITY OF MEDICINES TO ORDER AND COST

In column b, enter the required amount of medicine estimated in section B. Multiply by 0.50 to estimate the additional amount for reserve stock (for times of unforeseen use such as during epidemics and logistics breakdowns) plus an amount for wastage (due to improper storage or transport, spoilage, etc.) Record the result in column c. Record the sum of b + c in column d. Record the cost per tablet in column e. Multiply d x e to determine the total cost.

a Medicine	b Estimated amount to treat cases	c Proportion added for reserve (25%) and wastage (25%) (b x 0.5)	d Amount to order (b + c)	e Cost per vial/tablet	f Total cost (d x e)
Co-trimoxazole paediatric tablets					

Cost of medicines to treat children with standard case management for pneumonia at first-level health facilities:

\$

When you have completed this exercise. discuss your work with a facilitator.

6.3.6 Develop the budget

The budget is the framework for planning how to spend funds. In most settings, budgets are allocated using historic estimates, that is, the same amount as last year is allocated plus a certain percentage increase (e.g. 5%). However, in order to have sufficient funds available to implement planned activities and to achieve targets, a needs-based budgeting approach is more useful. This entails a bottom-up calculation of resource needs based on planned activities. A financing strategy based on a needs-based budget ensures that enough money is available to support the planned activities.

Budgeting includes calculating the amount of funding required, tracking how it is spent, and accounting for having spent it. The budget should be closely linked to the implementation plan. Each task and activity in the plan should have a cost allocated to it.

Budgets should include:

- A budget timeline. The length of the budget period (long-term, short-term) is determined by regulations from the Ministry of Finance or other government institutions at the national or sub-national levels. Budgets usually have to be submitted to a finance department (or other relevant unit) for approval. It is important that budgets are submitted before deadlines.
- Ongoing staff and materials costs (which occur independently of specific activities). These include staff costs for routine services; infrastructure maintenance costs (electricity, heating, mailing, office supplies, telephone); and transportation costs including fuel and vehicle maintenance.
- Costs of activities specified in the implementation plan. A budget line can be attached to each activity, which might include staff, systems (medicines, materials, supplies, transportation), and training costs.
- Estimates of medicines and other supplies and their costs. Some data are based on past experience and estimates from suppliers. Others are supplied by other staff; these need to be checked for accuracy and relevance.
- A standard format. The MOH or other relevant department normally provides templates. An example budget summary template is shown on the next page.
- An estimate of inflation and an adjustment of budget estimates based on this figure. Estimates of inflation can often be obtained from the ministry of finance. It is also normal practice to incorporate a figure for contingencies/unforeseen expenditures.
- Financing sources. Estimating the funding needs is not enough. The programme also needs to identify sources of funds, to assess feasibility of the plans and to obtain the money.

Figure 36

Budget template

Time period _____

Type of cost	Unit	Unit cost	Quantity	Total cost	Financing source
Capital costs					
Infrastructure					
Vehicles					
Equipment					
Training (non- recurrent)					
Communication (non-recurrent)					
Sub-total capital costs					
Recurrent costs					
Personnel					
Medicines					
Other supplies					
Maintenance and operations – infrastructure					
Maintenance and operations – vehicles					
Maintenance and operations – equipment					
Training (recurrent)					
Communication (recurrent)					
Administrative expenses					
Utilities (electricity, water, etc.)					
Sub-total recurrent costs					
Contingencies (inflation/unforeseen expenses)					
Total costs					

Figure 37

Costing tools

One of the major barriers to achieving health objectives and targets is lack of funding. Opportunities for mobilization of resources are often missed when many programmes are not able to make the economic case for the required financial assistance. Different types of tools to provide financial information for child health have been developed and tested. These tools include:

- 1) Cost projection tools for projecting resource needs for delivering child health interventions. Sound estimates of costs are required to plan future resource needs and to advocate for additional resources.
- 2) Expenditure tracking and budget analysis tools for determining how much is actually being spent on health activities by government and donors, to determine whether funds are being used efficiently and according to priorities.
- 3) Tools for costing and budgeting operational plans. This is related to translating a strategic plan into an operational plan; defining what activities need to take place in what time frame and in what areas of the country; and assessing the funding needed and the financial resources available.

Some costing tools currently available for estimating resource needs for strategic and/or operational planning are listed below. An overview of costing tools can be found at: http://www.who.int/pmnch/topics/economics/costingtoolsbrochure.pdf

- WHO cost-estimation tools: the Child Health Cost Estimation Tool (CHCET) for estimating incremental financial needs to scale up interventions to address the MDG4 (for 5-10 year strategic planning). The CHCET is linked to the Lives Saved Tool (LiST) which calculates the additional impact of interventions when coverage is increased. Implemented together, CHCET and LiST can help identify which combinations of interventions and delivery approaches are most likely to reach MDG4 and 5 at lowest cost.
- Marginal Budgeting for Bottlenecks (MBB) developed by World Bank and UNICEF for estimating costs of overcoming barriers to implementing health and nutrition activities related to the MDGs, in order to improve coverage of interventions.
- The Integrated Healthcare Technology Package (iHTP) for deciding on the mix of resources necessary to deliver a defined set of health interventions and to estimate the costs.
- Integrated Health Model to assess the costs of health interventions and activities addressing the MDGs.
- Cost Revenue Analysis Tool Plus (CORE Plus) Primary Health Care tool to assist managers and planners to determine the costs of individual services and packages of services under different scenarios. The tool is for use at facility or district level.
- Comprehensive-Multi-Year-Plan Costing and Financing Tool (cMYP) for childhood immunization developed jointly by WHO and UNICEF to make projections of future resource requirements and financing needs to achieve objectives of the national immunization programme, and to analyse the corresponding financing gaps and sustainability.
- HIV- and malaria-specific planning and costing tools.

The various tools take different approaches to costing, financing, budgeting, and identifying financial gaps. They require the user to enter information on demography, epidemiology, unit costs or prices, and health system information such as human resources available. While most of these tools have been used at the central level to help with strategic planning and policy development, there is a push to develop tools that can help with cost projection and budgeting at the lowest level, and therefore have a role in routine planning.

More information on tools available can be obtained from the organizations developing them, that is, from WHO (www.who.int/cah), and from the Partnership for Maternal, Newborn, and Child Health (PMNCH) which has recently conducted a review of costing tools for the MDGs. http://www.who.int/pmnch/topics/economics/costtoolsreviews/en/index.html

The development of financial assessment tools is a dynamic process, with continuous revision and updating of older models as well as the invention of new useful tools.

6.4 Write the workplan and share it with stakeholders

The workplan specifies how the intervention packages will be implemented on the ground. It should describe the programme's activity-related targets, the activities and tasks to be carried out including supervision, the plans for monitoring implementation of activities and for conducting the next review of implementation status. The workplan timetable is used for tracking activities over time, and ensuring that they are implemented as planned. The detailed budget is used to track expenditures and to advocate for additional resources.

The core planning team is responsible for writing the final workplan. The team should decide on the final content of the plan. See Figure 38 for an example of the major headings. It is often more efficient to have one or two members do the writing.

When the workplan is completed, it is essential to share it with stakeholders. Just as it was important to involve stakeholders in the development of the implementation plan, it is important to have discussion of the workplan to obtain consensus on the way forward and commitments of support for the different activities. Disseminating the workplan is one step in mobilizing support and resources for implementation. Sharing the plan should harmonize effort and unite all behind ONE plan for achieving common goals.

EXAMPLE: Content of an implementation workplan 1. Overview (from the assessment of programme status) Programme goals and objectives Current status of coverage indicators as compared to targets Current status of activity-related indicators (related to availability, access, demand, quality of health services and knowledge of families) Summary of how well activities in the previous plan were implemented Summary of the assessment of the current programme, its strengths and weaknesses, and what is needed to reach targets. 2. Implementation plan (1-2 years) Programme goals and objectives; coverage targets set by higher levels Activity-related targets Activities for delivery of interventions/packages in the home and community, first-level health facilities, and referral facilities Tasks in each activity Types of resources needed Plan for monitoring implementation of activities Plan for tracking whether activities are completed - Activity-related indicators: how, when, where and who will monitor them Plan for summarizing, analysing, interpreting monitoring data, using it, and disseminating results from monitoring Plan for the next review of implementation status • Specific indicators to assess, methods to collect data, how data will be summarized How the review will be conducted, and how results will be used How implementation will be scaled up How implementation will be shared with other groups or organizations Schedule for activities and timetable Budget



EXERCISE M – Review a workplan for a child health programme

In this exercise, you will review a workplan document from your own child health programme. Or, if this is not possible, your facilitator will give you one to review.

Review the document and answer the following questions. You may work with a colleague from your programme.

1. Are programme goals and objectives stated?

Are coverage targets included?

Are activity-related targets included?

- 2. Planned activities should contribute to one or more of the aims listed below. Note some activities in the plan that contribute to each of the aims below.
 - increasing availability of services:
 - increasing access to services:
 - increasing demand:
 - increasing quality of services:
 - increasing knowledge of families and the community relevant to child health:
- 3. Is sufficient detail provided on activities planned?
- 4. Are the budget and timetable feasible and realistic? What could be done differently?

- 5. Will resources be provided by groups or organizations outside of the MOH?
- 6. Is the plan for monitoring implementation of activities adequate? What should be changed or added?
- 7. Does the document include plans for the next review of implementation status? What needs to be changed or added?
- 8. Is the document readable? Is it too long or too short to be practical? What would you do differently?

When you have completed this exercise, tell your facilitator that you are ready for the group discussion.

Annex A

Information for Planning (with schedule)

Information for Planning

Your country or region has probably prepared many of the items below. Gather together as many as possible to inform an assessment of the programme's current status and to help with planning.

Laws

A ratified Convention on the Rights of the Child A law to ensure universal health care for children A human rights institution to oversee child rights (information about the institution) International Code of Marketing of Breastmilk Substitutes adopted ILO Convention 183 on Maternity Protection ratified

Strategy documents

National child health/survival strategy IMCI strategy (community and facility-based) EPI/nutrition/malaria/HIV strategies Newborn health strategy Micronutrient and Infant and Young Child Feeding strategies Health sector reform plans Human resources plan - including job descriptions for staff at each level Description of role of community health workers Financing policies

Clinical case guidelines and standards in use on:

Breastfeeding and micronutrients Baby-friendly hospitals Management of pregnant women Case management of diarrhoea, pneumonia and malaria EPI immunization schedule Notification of maternal deaths Midwives authorized to administer a core set of life-saving interventions IMCI guidelines adapted to cover newborns 0–1 week of age Community management of pneumonia with antibiotics

Essential medicines

Essential medicine lists Low osmolarity ORS and zinc supplements for management of diarrhoea

Training materials/courses in use

IMCI (community and facility-based) Midwife skills Essential newborn care Supervisory skills Community health worker training Breastfeeding promotion and young infant feeding Child growth assessment Essential obstetric care Communication skills

Communication materials for child health

Counseling cards, flip charts, posters used in health facilities Mother's card, child health record, child growth record Counselling materials used by community health workers

Global and regional strategies and targets

Existing strategic and/or implementation plans for each level

National strategic plan for child health, including objectives and targets Regional or other level strategic plan for child health, including objectives and targets Costed implementation plan or plans for maternal, newborn, and child health at regional, district, or other levels

Most recent implementation or operational plan for your geographic area/level

Most recent programme status reports

Training summaries Reports on supervision Reports on community-based activities Budget reports

Most recent evaluation data

Household or community-based surveys Health facility surveys Programme reviews Special studies or research

Schedule of action steps for planning and implementing child health programmes

Action	Possible time required
Step 1 – Prepare for planning	
Identify planning coordinator	1-3 months
Meet with MOH and stakeholders group to review planning parameters	1-3 months
Establish a core planning team – ideally appointed by the stakeholders	1-3 months
Planning implementation (steps performed by core planning team)	
Step 2 – Review implementation status	1 week
Step 3 – Decide on programme activities	
Step 4 – Plan for monitoring implementation of activities	1 week
Step 5 – Plan for the next review of implementation status	
Step 6 – Write a workplan and budget	1 week
Managing implementation (steps performed by managers)–Ensure that activities are implemented as planned	
Key steps:	
Advocate for child health	
Mobilize resources	
Manage human, material and financial resources	Ongoing
Manage supervision	
Monitor progress and use results	
Regular meetings with stakeholder groups to present updates on progress and to advocate for technical and financial resources or policy support	Ongoing

Annex B

Child Health Interventions and Intervention Packages

Effective interventions for improving newborn and child survival

Pregnancy

Tetanus toxoid immunization

Birth and emergency planning

Detection and management of problems complicating pregnancy (e.g. hypertensive disorders, bleeding, malpresentations, multiple pregnancy, anaemia)

Detection and treatment of syphilis

Intermittent preventive therapy for malaria#

Information and counselling on self-care, nutrition, safer sex, breastfeeding, family planning

Sleeping under insecticide-treated bednets#

Prevention of mother-to-child transmission of HIV⁺ ##

Labour, birth and 1-2 hours after birth

Monitoring progress of labour, maternal and foetal well-being with partograph

Social support (companion) during birth

Immediate newborn care (resuscitation if required, thermal care, hygienic cord care, early initiation of breastfeeding)

Emergency obstetric and newborn care for complications

Antibiotics for preterm premature rupture of membranes*

Antenatal corticosteroids for preterm labour*

Prevention of mother-to-child transmission of HIV⁺ ##

* Requires a stronger health system. Consider introducing when simpler interventions are at high coverage.

Situational intervention only necessary in setting where malaria is endemic ## Situational intervention only necessary in setting where HIV prevalence is high

⁺ The four pillars of prevention of mother-to-child transmission of HIV (**PMTCT**) include:

- (i) preventing HIV infection in women
- (ii) preventing unintended pregnancy among HIV-infected women
- (iii) preventing transmission from an HIV-infected woman to her baby by caesarean section, antiretrovirals and safer infant feeding options
- (iv) providing care, support and treatment for HIV-infected women, their infants and children

Effective interventions for improving newborn and child survival (continued)

Newborn period (after the first 1-2 hours after birth)

Exclusive breastfeeding

Thermal care

Hygienic cord care

Prompt care-seeking for illness

Extra care of LBW infants

Immunization

Management of newborn illness

Prevention of mother-to-child transmission of HIV⁺ ##

Older infants and children (1 month up to 5 years)

Preventive interventions

Exclusive breastfeeding (up to age 6 months) Safe and appropriate complementary feeding starting at 6 months of age with continued breastfeeding (up to age 2 years and beyond) Sleeping under insecticide-treated bednets# Immunization Vitamin A supplementation Hand washing and proper disposal of faeces Birth spacing of 24 months or more **Treatment interventions** Oral rehydration therapy for diarrhoea Zinc for diarrhoea Antibiotics for dysentery Antibiotics for pneumonia

Antimalarials

Management of severe malnutrition

Management of HIV-exposed and HIV-infected children##

Situational intervention only necessary in setting where malaria is endemic## Situational intervention only necessary in setting where HIV prevalence is high

⁺ The four pillars of prevention of mother-to-child transmission of HIV (**PMTCT**) include:

- (i) preventing HIV infection in women
- (ii) preventing unintended pregnancy among HIV-infected women
- iii) preventing transmission from an HIV-infected woman to her baby by caesarean section, antiretrovirals and safer infant feeding options
- (iv) providing care, support and treatment for HIV-infected women, their infants and children

Intervention packages for child health

	Universal	Situational
	(recommended in all settings)	(where warranted)
Care during pregnancy	Antenatal care package: Tetanus toxoid immunization	Intermittent preventive therapy (IPT) for malaria
	Birth and emergency planning Detection and management of complications	Sleeping under insecticide- treated bednets Prevention of mother-to-
	Information and counselling on self-care, nutrition, safer sex, breastfeeding, family planning for birth spacing	child transmission of HIV
Care during labour, birth and 1-2 hours after birth	Skilled care at birth:Monitoring progress during labourSocial support (companion) during birthImmediate newborn care (resuscitation if required, thermal care, hygienic cord care, early initiation of breastfeeding)Emergency obstetric and newborn care:Detection and clinical management of obstetric and newborn complications	Prevention of mother-to- child transmission of HIV
Postnatal/Newborn care	Routine postnatal care of mother and newborn: Exclusive breastfeeding Thermal care Hygienic cord care Extra care of LBW infants Prompt care-seeking for illness Immunization Management of newborn illness	Prevention of mother-to- child transmission of HIV
Care during infancy and childhood	Community case management of diarrhoea, pneumonia malaria and malnutrition IMCI (first-level health facilities): Algorithm-based management of diarrhoea (with ORT and zinc), pneumonia, malaria, malnutrition and newborn illness; care for HIV- exposed and HIV-infected children IMCI (referral facilities): Management of severe infant and child illnesses Community IMCI: Community mobilization and communications to promote: Exclusive breastfeeding Safe and appropriate complementary feeding starting at 6 months with continued breastfeeding Hand washing and proper disposal of faeces Care-seeking for preventive interventions (e.g. vaccines) Home care for illness Care-seeking for illness EPI: Delivery of essential vaccines	Sleeping under insecticide- treated bednets to prevent malaria Prevention of HIV Care of HIV-exposed and HIV-infected children Vitamin A supplementation

Annex C

Questions and Criteria for Assessing the Quality of Activities

Questions and Criteria for Assessing Quality of Activities

The questions and criteria in this annex can be used to assess the quality of activities the programme has implemented or to plan activities for the next workplan.

1. Advocacy/Resource mobilization

- Have advocacy activities been considered or implemented to:
 - Increase political will for allocation of funds and other resources towards child health?
 - Increase sharing of resources between ministries to assist child health programmes?
 - Increase the likelihood that communities will support child health initiatives?
 - Increase involvement of non-governmental organizations in activities?
 - Increase support from donors towards child health activities?
 - Raise the profile of child health activities among the general public, and thereby increase pressure from the public on politicians and policy-makers?
- Do advocacy plans specify the target group, the advocacy messages, and methods to best deliver the messages?
- Are there clinical standards and guidelines for:
 - IMCI, including practice standards for pneumonia, diarrhoea, malaria, nutrition and micronutrients?
 - essential health behaviours?
 - antenatal care and delivery?
 - emergency obstetric and newborn care?
 - essential newborn care?

Clinical standards and guidelines

Clinical standards and guidelines are critical to ensuring that interventions are technically sound. Clinical standards need to be established and regularly reviewed. Examples of policy decisions that need to be made and reflected in guidelines on management of common conditions include:

- **Diarrhoea**: Appropriate home fluids for the treatment and prevention of dehydration; local fluids that cannot be given; recommended local foods that can be given during diarrhoea; rational use of medicines for diarrhoea (antibiotics and antidiarrhoeals); first- and second-line treatment for bloody diarrhoea (dysentery).
- **Pneumonia**: First- and second-line antibiotics; use of antibiotics by community health workers; rational use of antibiotics and avoidance of antibiotics for simple upper respiratory tract infections; inappropriate local remedies.
- **Malaria**: First- and second-line antimalarials; strategy for monitoring antimicrobial resistance; the provision and impregnation of bednets.
- **Nutrition**: Breastfeeding and complimentary feeding policies including marketing codes for infant formula; appropriate foods for complimentary feeding; micronutrient supplementation; management of malnourished children.
- **HIV**: Approach to the prevention of mother-to-child transmission of HIV, including a breastfeeding policy. Policy on voluntary counselling and testing.

Clinical guidelines used in training should reflect standard case management approaches and should be appropriate for the tasks to be performed by each cadre of health worker. For example, guidelines must be consistent with policy such as whether midwives are allowed to conduct simple obstetric procedures, or whether community health workers are allowed to give antibiotics for pneumonia. The technical guidelines should describe exactly how first-level health facility staff should manage severely ill children when referral is difficult, and this should be addressed in their training.

2. Training/Human resource development

Training may be required for facility and community-based health staff, district staff including staff who will provide supervision, and staff at higher levels. Training may also be needed for members of community groups or committees who will play a leadership role.

In-service training

- Are appropriate staff selected for training? Training should be attended by the individuals who will use the skills being taught.
- Are the training materials and methods appropriate?
 - Was the duration of training adequate to teach the required skills and knowledge?
 - Were materials consistent with WHO or other international guidelines on standard case management?
 - Were training methods interactive, including questions and answers, discussions, demonstrations, individual exercises?
 - Most importantly, was there supervised practice doing case management for each trainee?
 - Did trainers assess each participant's performance and give immediate feedback?
 - Was there enough clinical practice that improvement could be attained and observed by trainers?
 - Was there at least one trainer to every four participants?

• Was training planned appropriately?

Training at a central venue, with facilitators and a course schedule and outline, will be appropriate for some categories of health workers, particularly supervisors.

Training for community group members or community health workers often can be done locally in the community. For example, supervisors might provide training in use of counselling materials when they visit. This kind of training can be quick and cost-effective.

In some cases, the government may already be providing training–for example for CHWs, or skilled birth attendants–and child health training can be linked with these ongoing training programmes.

• Was follow-up after training included?

Ideally, all trained staff should be followed-up to assess whether they have been able to put the skills they learned in training into practice on the job. Follow-up should include observation and should provide guidance and support.

Follow-up after training is currently an element of the IMCI case-management training approach. Follow-up after training in other technical areas would also be useful and could use the same principles (the use of a standard checklist, which includes observation of practice). The manual, *IMCI Guidelines for Follow-up After Training*, describes the purposes and activities of follow-up and provides generic job aids for conducting follow-up visits.

Pre-service training

- Is a pre-service training plan available?
- Are training materials based on international standards and guidelines?
- Is enough time allocated to each technical area?
- Are appropriate materials provided to students?
- Does training include demonstrations and clinical experience?
- Are students adequately assessed at the end of training to determine competence in key skills?

Ensuring adequate staffing

- Is there a long-term strategy for human resource development?
- Are there available definitions of roles and responsibilities of staff including CHWs?
- Are adequate numbers of health workers being trained?
- Are new cadres of health workers planned to help scale up/accelerate the child health programme?
- Are data available on adequacy of staffing and on staff turnover?
- Where do staff shortages occur most frequently?
- Are data available on the reasons for staff shortages?
- Are plans available for increasing the supply of staff to those areas that need them?
- What are the barriers to improving the supply of staff to areas that need them?
- Are there plans for limiting the turnover of staff?
- What are the barriers to limiting the turnover of staff?
- What methods have been used to improve staff motivation?

3. Strengthening supplies of medicines and equipment

• Is an essential medicine list available?

It is important that the national essential medicine list includes medicines that are recommended for standard case management of children and newborns at both first-level health facilities and referral facilities as well as micronutrients used for preventive care such as vitamin A or iron. Review and modification of national medicine policy and the essential medicines list is usually done at the national level. If the essential medicines list does not include medicines that are important for first-level care, pre-referral treatment, and referral care, then local managers need to bring this to the attention of higher-level managers.

- Do the medicine procurement and distribution systems at central and district levels function effectively? What is the current availability of medicines and supplies needed to support standard case management services?
 - Are there gaps in the system along the pathway between the central level and the most peripheral level?
 - What is the district role in procuring, distributing and reordering medicines?
 - What can be done to improve the distribution system at each level?

Methods to collect data about the supply system might include document reviews, structured interviews and physical inventory checks. Discussions with staff at the district level who are responsible for medicine procurement and distribution are also essential. Areas that need specific support can be identified, such as improving the skills of the district pharmacist in estimating medicine needs and ordering them in time.

- How effective are medicine management practices at health facilities?
 - Is there a stock card for each item in the store and is it current and correct?
 - Are there any expired items in the store?
 - Is the store kept locked at all times when not in use?
- What are the roles of different levels?
 - Are more supplies or other support needed from the central store?
 - Do district-level reordering or distribution practices need to improve?
 - Do the practices of facility staff need to improve?
- What are the budgetary implications of improving the supply of essential medicines and supplies? Alternative methods for paying for essential medicines and supplies may be needed; these could include cost recovery systems or using private medicine sellers and pharmacists to sell essential medicines for a fixed fee.

4. Strengthening referral pathways

- Does the programme plan include strategies to improve referral pathways and services?
- Are data available on gaps in the referral system?

An assessment of referral practices might include:

- Special studies that track patients from first-level health facilities and communities to referral facilities
- Health facility surveys that investigate quality of care at first-level health facilities and referral facilities
- Qualitative studies that ask about caregiver practices.

Discussions with staff at all levels are useful. Discussions with caregivers can also provide information on barriers to referral. Gaps may occur at several levels including:

- The quality of referral care is poor
- Geographic access is limited due to long distances
- Caregivers may not go for care when referred, even if it is accessible (e.g. because of lack of money for transport or for hospital care, cultural beliefs, responsibilities in the home, poor perception of hospital care)
- Have possible solutions been identified to improve referral? Examples include:
 - Improve training for staff at referral facilities
 - Strengthen transportation to referral facilities for severely ill children and newborns, for example, by means of a community fund for special transportation
 - Select and train first-level health facility workers to provide referral care when referral is not possible, in addition to the basic IMCI training. For IMCI, the guidelines *When Referral is Not Possible* can be adapted for local use. In addition, first-level health facilities will need a supply of medicines and equipment that are not routinely available.
 - Improve health education to address beliefs that negatively affect referral, and to increase the willingness of caregivers to seek referral
 - Conduct operational research to find out factors that influence referral, if not enough is known

5. Communications and development of community supports

The communications plan will specify the channels to be used and therefore the types of messages, materials and methods needed.

- Does the programme have a plan for communication activities? It should specify behaviours to be changed, messages to be given, channels and materials to be used, timing of the messages, how and when behavioural outcomes will be measured.
- Do the communication messages focus on changing the key family practices identified for the programme?
- Are messages developed using data on local beliefs and terms, and are they adequately pre-tested in communities? What data were used to develop or adapt messages? Were health education specialists used in the development of materials?

- Were existing health education materials catalogued and reviewed to ensure that currently available materials were used as much as possible?
- Are the duration and methods of communication skills training adequate?
- Will communication methods reach communities effectively?
- Are approaches potentially sustainable in the longer term?
- Are activities adequately funded?

See the tables on the next pages for key decisions when planning communication activities.

Development of community supports

Communities will need to be given support and supervision in order to build community capacity. Often this needs to be intensive at the beginning of a process, and less intensive over time. The following questions need to be asked:

- Does the programme have a plan for developing community supports in order to implement activities in communities?
- What methods are used to implement activities in communities? How were these activities shared with other partners, the MOH and community members?
- Are there policies to encourage community involvement, such as cost-sharing or cost-recovery schemes?
- Was the community plan developed in collaboration with community members or groups? Does it build on existing community activities or structures that have been effective in the past?
- Was a strategy for providing community-level supervision and support for CHWs included?
- How are new CHWs selected? Are there criteria and methods for selecting appropriate candidates? Are they used?
- How are community groups or teams formed? Were criteria and methods for forming groups developed? Are they used?
- Is the budget for community-level activities adequate? Are resources shared with communities?
- Are community activities likely to be sustainable? If not, why not?

Key decisions in planning health communication activities

Decision	Definitions	Examples	Data or information needed qualitative and quantitative
Who should the communication be directed towards?	The target group are the persons to whom the communication is directed. The choice of target group depends on the health behaviours being addressed.	Parents, child caregivers, grandmothers, influential people in the community.	The group(s) in the community who need to change their behaviours, and those who influence decision making
What should be communicated?	Key messages focus on the appropriate family practice(s)	Beliefs, attitudes, cultural practices may be barriers to change. Common barriers to key family practices should be addressed.	Factors that influence the behaviour in the community, including barriers to action
Where should the communication take place?	The setting used to reach to target group	Clinics, schools, workplace, community meeting areas, radio, print media and TV	Where the target group go and what media they use
Who will do the communication?	The staff carrying out the communication	Health workers in clinics, pharmacists, shopkeepers, community volunteers, teachers. Mass media messages are produced in advance.	Who is active in the community and respected by the target group; review media groups that have developed health campaigns.
How will the communication be carried out?	The method used for communication	One-on one counselling; group education; mass media (radio, television, newspapers, billboards.) Can be used separately or in combination.	Method that is most affordable, and most likely to reach the intended target group.
What support activities will be needed?	Training of field staff in communication skills Provision of necessary learning materials	Training can include: workshops or visits to centres already active in communication. Videos, leaflets, flip-charts and wall charts can be used as support materials.	Communication skills of existing staff. Existing materials.
How should the communication be evaluated?	Choice of indicators	Outcome measures of caregiver knowledge and practice	Indicators should be specific for key behaviours targeted

Example communication methods

Approach	Method	Advantages	Disadvantages
MEDIA	Television	 Broad reach Cost per person reached can be low Can reach both literate and illiterate people Combines visual dimension with spoken word Can influence behaviours that are not deeply entrenched Message can be accurately controlled 	 Television ownership may be restricted to higher- income, urban population High initial cost for production Difficult to meet needs of specific groups Lack of immediate feedback High cost of air time
	Radio	 Very broad reach Regional radio provides opportunity to broadcast in local languages Easy to include content from interviews/music recorded in local communities 	 Similar problems as TV: difficulty making content specific to different local communities and obtaining feedback Lacks a visual dimension
	Newspapers, posters	 Reach can be broad Can be distributed to highly targeted group and influential persons Can include pictures Can provide information 	 Written material unsuitable for non-literate communities Reach of newspapers may be limited
INTER - PERSONAL	Community- based Using field workers, volunteers or peers in community settings	 Takes education activities to the community and is therefore good for difficult-to-reach groups Allows education to be focused on the target groups' special needs Can be very effective in influencing beliefs, attitudes and behaviours, and providing specific skills 	 Field staff may not be available Takes longer to reach the audience Message given to target audience may be distorted unless there is close supervision of field staff
	Facility-based for example, patient education, schools, workplace	 Allows the education to be tailored to the audience's specific needs Can be very effective in influencing beliefs, attitudes and behaviours, providing specific skills and generating empowerment 	 Only reaches those people who use services Formal setting can inhibit the use of participatory methods Time may be limited because of work pressure
	Large meetings	 Capable of generating a large amount of interest Can lead to community participation 	Without advance preparation and follow-up may not lead to lasting change

6. Supervision

- Has the programme designated supervisors for all staff? Do the supervisors who supervise clinical case management have the authority and skills to do so?
- Has the programme trained supervisors to supervise? Did they participate in supervisory skills training?
- Does supervisory skills training teach:
 - ✓ Observation of the health workers' performance managing cases, including giving feedback?
 - ✓ A review of health facility conditions that affect the implementation of standard case management, including problem solving?
 - \checkmark Other activities, such as collection of data for monitoring?
- Are standard supervisory checklists or standardized reporting forms used? Are checklists integrated, so that one supervisor can conduct supervision for several different technical areas at the same time?
- What kind of feedback is provided to health workers? Examples include on-site meetings with health workers or written reports sent back to the health facility.
- Were supervisory visits conducted regularly? They should occur at least twice a year.
- Was training of health workers followed up by supervision and on-the-job training and reinforcement of skills?

7. Monitoring of implementation of activities

- Does the programme have a monitoring plan?
- What data are routinely collected for monitoring?
- What methods are used to collect routine data?
- Who is responsible for collecting data?
- How often are data collected?
- Is a standard recording form used to record data? How are data stored?
- How are data summarized?
- How often do managers review and interpret monitoring data?
- Are data used immediately to make programme decisions?
- Are monitoring data for different programme areas linked so that all data are collected at the same time to reduce waste or duplication of effort?

Annual review of implementation

- Does the programme have plan for an annual review of implementation?
- Does the plan specify the activity-related indicators to be assessed?
- Are programme targets specified for coverage with interventions?

- Does the implementation plan specify activities to collect and summarize data for a review? To calculate indicators? Are the proposed data collection activities adequate to measure all the proposed indicators?
- Are special data collection activities planned (e.g. surveys), and if so, is there a timetable and budget for them?
- When was the most recent review of implementation?
- Were staff given feedback about the findings of the review? Were the results used to revise programme activities?

Annex D

Standard Child Health Coverage Indicators

Population-Based Coverage Indicators for Priority Child Health Interventions Agreed by WHO/UNICEF/USAID
DEFINITIONS OF PRIORITY CHILD HEALTH INDICATORS FOR HEALTH FACILITY LEVEL

Note: The usual method for collecting data to measure these indicators is a health facility survey of a representative sample of outpatient health facilities. The technical standard used for these indicators is IMCI. A validated classification is a classification made by an IMCI-trained expert clinician after reexamining the child. The indicators listed below refer to children two months up to five years of age, unless otherwise stated.

- 1. *Child checked for three general danger signs.* The proportion of children checked for the three general danger signs.
 - Numerator:Number of sick children aged 2 months up to five years seen who are
checked for three danger signs (is the child able to drink or breastfeed,
does the child vomit everything, has the child had convulsions)
 - **Denominator:** Number of sick children aged 2 months up to five years seen
- 2. *Child checked for the presence of cough, diarrhoea and fever.* The proportion of children checked for the presence of cough, diarrhoea, and fever.

Numerator: Number of sick children seen whose caregivers were asked about the presence of cough, diarrhoea, and fever

Denominator: Number of sick children seen

3. *Child's weight checked against a growth chart.* The proportion of children who have been weighed the same day and have their weight checked against a recommended growth chart.

Numerator: Number of sick children seen who have been weighed the same day and have their weight checked against a recommended growth chart

Denominator: Number of sick children seen

- 4. *Child vaccination status checked.* The proportion of children who have their vaccination status checked.
 - **Numerator:** Number of sick children seen who have their vaccination card or vaccination history checked.

Denominator: Number of sick children seen

5. *Index of integrated assessment*. Mean of assessment tasks performed per sick child assessed.

Definition: Arithmetic mean of 10 assessment tasks performed for each child (checked for three danger signs, checked for the three main symptoms, child weighed and weight checked against a growth chart, checked for palmar pallor, and checked for vaccination status divided by ten)

- Calculation: checked for "ability to drink or breastfeed", "vomits everything", and convulsions", 1 point each checked for presence of "cough & fast/difficult breathing", "diarrhoea", and "fever", 1 point each child weighed the same day and child's weight plotted against a recommended growth chart, 1 point each checked for palmar pallor, 1 point vaccination status checked (card or history), 1 point
- 6. *Child under two years of age assessed for feeding practices.* The proportion of children under two years of age whose caregivers are asked about breastfeeding, complementary foods, and feeding practices during this episode of illness.
 - Numerator: Number of sick children under two years of age whose caregivers are asked if they breastfeed this child, whether the child takes any other food or fluids other than breastmilk, and if during this illness the child's feeding has changed
 - **Denominator:** Number of sick children under two years of age seen
- 7. *Child needing an oral antibiotic and/or an antimalarial is prescribed the medicine correctly.* The proportion of children who do not need urgent referral, who need an oral antibiotic and/or an antimalarial, who are prescribed the medicine(s) correctly.
 - Numerator: Number of sick children with validated classifications, who do not need urgent referral, who need an oral antibiotic and/or an antimalarial (pneumonia, and/or dysentery, and/or malaria, and/or acute ear infection, and/or anaemia in high malaria risk areas) who are correctly prescribed them, including dose, number of times per day, and number of days
 - **Denominator:** Number of sick children with validated classifications who do not need urgent referral, who need an oral antibiotic and/or an antimalarial.
- 8. *Child not needing antibiotic leaves the facility without antibiotic.* The proportion of children who do not need urgent referral and who do not need an antibiotic for one or more IMCI classifications who leave the facility without having received or having been prescribed antibiotics.
 - **Numerator:** Number of children with validated classification who do not need urgent referral and do not need an antibiotic for one or more IMCI classifications (no pneumonia: cough or cold, diarrhoea with or without dehydration, persistent diarrhoea, malaria, fever-malaria unlikely, measles, chronic ear infection, no ear infection, anaemia or very low weight, and/or no anaemia and not very low weight) who leave the facility without receiving antibiotics or a prescription for antibiotics for those validated classifications
 - **Denominator:** Number of children seen who do not need urgent referral and who do not need an antibiotic for one or more IMCI classifications

- 9. *Caregiver of* sick *child is advised to give extra fluids and continue feeding.* The proportion of sick children whose caregivers are advised to give extra fluid and continue feeding.
 - Numerator: Number of sick children with validated classifications, who do not need urgent referral, whose caregivers are advised to give extra fluid **and** continue feeding
 - **Denominator:** Number of sick children with validated classifications, who do not need urgent referral
- 10. *Child needing vaccinations leaves facility with all needed vaccinations.* The proportion of children needing vaccinations (based on vaccination card or history) who leave the health facility with all needed vaccinations (according to national immunization schedule).
 - Numerator:
 Number of children who need vaccinations (based on vaccination card or history) who leave the health facility with all needed vaccinations
 - **Denominator:** Number of children seen who need vaccinations (based on vaccination card or history)
- 11. Caregiver of child who is prescribed ORS, and/or an oral antibiotic and/or an oral antimalarial knows how to give the treatment. The proportion of children prescribed ORS, and/or an oral antibiotic and/or an oral antimalarial whose caregivers can describe correctly how to give the treatment.
 - Numerator: Number of sick children prescribed ORS, and/or an oral antibiotic and/or an oral antimalarial whose caregivers can describe how to give the correct treatment including the amount, number of times per day, and number of days
 - **Denominator:** Number of sick children prescribed ORS and/or an antibiotic and/or an antimalarial
- 12. *Child needing referral is referred.* The proportion of children needing referral who are referred by the health workers.
 - Numerator: Number of sick children with a validated classification of severe disease needing referral (one or more danger signs, severe pneumonia or very severe disease, and/or severe dehydration with any other severe classification, and/or severe persistent diarrhoea, and/or very severe febrile disease, and/or severe complicated measles, and/or mastoiditis, and/or severe malnutrition or severe anaemia) who were referred by the health workers
 - **Denominator:** Number of sick children with a validated classification of severe disease needing referral
- 13. Health facility received at least one supervisory visit that included observation of case management during the previous six months. The proportion of health facilities that received at least one visit of routine supervision that included the observation of case management during the previous six months.
 - **Numerator:** Number of health facilities that received at least one visit of routine supervision (excluding the follow-up visits to health workers shortly after their training that are part of IMCI training) that included the observation of case management during the previous six months
 - Denominator: Number of health facilities surveyed

- 14. *Index of availability of essential oral treatments.* Essential oral medicines for home treatment of sick children present the day of visit.
 - **Definition**: Arithmetic mean of essential oral medicines recommended for home treatment of diarrhoea, dysentery, pneumonia, fever, malaria, and anaemia available at each facility the day of visit, divided by eight
 - Calculation: - ORS, 1 point - recommended antibiotic for pneumonia, 1 point - recommended antibiotic for dysentery, 1 point - recommended antimalarial, 1 point - vitamin A, 1 point - iron, 1 point
 - mebendazole, 1 point
 - paracetamol/aspirin, 1 point
- 15. *Index of availability of injectable medicines for pre-referral treatment.* Injectable antibiotics and antimalarials for pre-referral treatment of sick children and young infants that are available in each facility on the day of visit.
 - **Definition:** Arithmetic mean of recommended injectable pre-referral treatment for children and young infants with severe classification needing immediate referral, divided by four
 - Calculation: recommended IM antibiotic for children, 1 point - quinine, 1 point - gentamycin, 1 point - benzylpenicillin, 1 point
- 16. *Health facility has the equipment and supplies to support full vaccination services.* The proportion of health facilities that have the equipment and supplies to provide full vaccination services on the day of the survey.
 - Numerator: Number of health facilities that have available the equipment and supplies to support full vaccination services (functioning refrigerator or cold chain, and functioning sterilizer and needles/syringes or disposable needles/syringes) on the day of survey
 - Denominator: Number of health facilities surveyed
- 17. *Index of availability of four vaccines.* Mean of four recommended antigens available at each facility the day of visit.

Definition: Arithmetic mean of recommended vaccines available at each facility the days of visits, divided by four

Calculation:	- BCG, 1 point
	- Polio, 1 point
	- DPT, 1 point
	- Measles, 1 point

- 18. *Health facilities with at least 60% of workers managing children trained in IMCI.* The proportion of first-level health facilities with at least 60% of health workers managing children trained in IMCI.
 - Numerator: Number of health facilities with at least 60% of health workers managing children trained in IMCI
 - **Denominator:** Number of health facilities surveyed

19. *Health facilities providing emergency obstetric care.* The proportion of facilities providing basic or comprehensive obstetric care functions per 500,000 population.

Numerator: Number of health facilities providing all standardized basic and comprehensive obstetric care functions

Denominator: Total population of catchment area

Components of emergency obstetric care package to be defined according to standard guidelines

20. *Health facilities designated as baby-friendly.* The proportion of hospitals and maternity facilities accredited as baby-friendly according to the 10 UNICEF/WHO criteria for breastfeeding and newborn care.

Numerator: Number of hospitals and maternity facilities accredited as baby-friendly

Denominator: Total number of hospitals and maternity facilities that handle deliveries

DEFINITIONS OF PRIORITY INDICATORS AT HOUSEHOLD LEVEL

Note: The usual method for collecting data to measure these indicators is a household survey of a representative sample of households. Unless otherwise specified, indicators are calculated for children up to five years of age

- 1. *Under-five mortality*. The number of children who died between birth and 59 months in a given period, per 1000 live births in the same period.
 - Numerator:Number of liveborn children who died between birth and 59 months in a
given period (reported by women of childbearing age surveyed) x 1000
 - **Denominator**: Number of liveborn children in the same period (reported by women of childbearing age surveyed)
- 2. *Neonatal mortality*. The number of neonatal deaths per 1000 live births in a given period.

Numerator: Number liveborn babies who die in within the first 28 days of completed life (0-27 days) in a given period (reported by women of childbearing age surveyed) x 1000

- **Denominator**: Number of liveborn babies born in the same period (reported by women of childbearing age surveyed)
- 3. *Pregnant women make at least 2 antenatal care visits.* Proportion of women who made at least 2 antenatal care visits during their last pregnancy.

Numerator:Number of pregnant women who had a live birth in a specified period
who made at least 2 antenatal care visits during their pregnancy

Denominator: Total number of live births in the same period

4. *Women received at least 2 doses of tetanus-toxoid (TT) during their last pregnancy.* Proportion of pregnant women receiving at least 2 doses of TT during their last pregnancy.

Numerator: Number of women giving birth during a reference period (e.g. 5 years) who report receiving at least 2 doses of TT during their last pregnancy

Denominator: Total number of live births in the same period

5. *Women are delivered by a skilled birth attendant.* Proportion of women whose last delivery was delivered by a skilled birth attendant.

Numerator:	Number of deliveries with a skilled attendant at the birth during a specified period
Denominator:	Total number of live births during the same period

6. *Babies with a birth weight of 2500 grams or less.* Proportion of live births with a low birth weight in a specified period (usually 12 months).

Numerator: Number of liveborn babies weighing < 2500 grams in a specified period

Denominator: Total number of live births in the same period

7. *Breastfeeding is initiated within an hour of birth.* Proportion of infants less than 12 months of age who were put to the breast within one hour of delivery.

Numerator: Number of infants less than 12 months of age put to the breast within one hour of delivery

- **Denominator**: Total number of infants less than 12 months of age surveyed
- 8. *Women and newborns receive postnatal care within 3 days of delivery.* Proportion of infants less than 12 months of age who were seen by a trained provider within 3 days of birth.

Numerator: Number of infants less than 12 months of age who were seen by a trained provider within 3 days of birth

- Denominator: Total number of infants less than 12 months of age surveyed
- 9. *Children under 6 months of age exclusively breastfed.* Proportion of infants aged less than 6 months who were exclusively breastfed in the last 24 hours.

Numerator: Number of infants aged 0-5 months (less than 180 days) who were given nothing but breastmilk in the past 24 hours

- Denominator: Total number of infants 0-5 months (less than 180 days) surveyed
- 10. *Children aged 6-9 months receive appropriate breastfeeding and complementary feeding.* Proportion of infants aged 6-9 months receiving breastmilk and appropriate complementary foods.

Numerator:	Number infants aged 6-9 months who received breastmilk and complementary foods ¹² in the last 24 hours

Denominator: Total number of infants aged 6-9 months surveyed

¹² Solid and/or semi-solid foods. Foods must be locally defined as appropriate and must be given in an adequate frequency.

Children receive continued breastfeeding to 12-15 months and 20-23 months.
 Proportion of children aged 12-15 months and 20-23 months who continue to receive breastfeeding.

surveyed

Numerator:	Number of children aged 12-15 months and 20-23 months who received breastmilk in the last 24 hours
Denominator:	Total number of children aged 12-15 months and 20-23 months

- 12. *Children under 2 years of age who are low weight-for-age (underweight prevalence).* Proportion of children who are below -2SD from the median weight-for-age according to the WHO/NCHS reference population.
 - Numerator: Number of children under 2 years of age whose weight is below -2 standard deviations from the median weight-for-age of the WHO/NCHS reference population
 - **Denominator:** Number of children under 2 years of age surveyed
- 13. *Children have received a dose of vitamin A in the previous 6 months*. Proportion of children 6-59 months of age who have received a vitamin A capsule from any source in the previous 6 months.

Numerator: Number children 6-59 months of age who have received a dose of vitamin A in the previous 6 months

- **Denominator**: Total number of children aged 6-59 months surveyed
- 14. Measles coverage. Proportion of children aged 12-23 months vaccinated against measles before 12 months of age.

Numerator: Number of children aged 12-23 months vaccinated against measles before 12 months of age (by card or history)

Denominator: Total number of children aged 12-23 months surveyed

15. *DPT3 coverage*. Proportion of children aged 12-23 months vaccinated with DPT3 by age 12 months.

Numerator: Number of children aged 12-23 months who received 3 doses of DPT by 12 months of age (by card or history)

Denominator: Total number of children aged 12-23 months surveyed

16. *Children sleep under an insecticide-treated net (in malaria risk areas).* Proportion of children aged 0-59 months who slept under an insecticide-treated¹³ net in malaria risk areas.

Numerator:Number children aged 0-59 months who slept under an insecticide-
treated net the previous night

Denominator: Total number of children aged 0-59 months surveyed

17. Households use improved sources of drinking water. Proportion of households with access to a source of drinking water that is defined as being clean and safe (safe or protected well, or appropriate water treatment).

Numerator: Number households with access to clean and safe sources of drinking water

- Denominator: Total number of households surveyed
- *Households use adequate sanitary means of excreta disposal.* Proportion of households with access to a clean, covered and protected pit latrine or better for regular daily use.

Numerator: Number households with access to a clean, covered and protected pit latrine or better for regular daily use

Denominator: Total number of households surveyed

Households store water safely. Proportion of households storing water in a covered, narrow-neck container, or in a cistern or roof-tank.

Numerator: Number households storing water in a covered, narrow-neck container or in a cistern or roof-tank

- Denominator: Total number of households surveyed
- *20. Sick children are offered increased fluids and continued feeding.* Proportion of sick children who received increased fluids and continued feeding during the illness.

Numerator: Number of children aged 0-59 months who were sick in the previous two weeks who received increased fluids and the same amount of food or more during the illness

Denominator: Total number of children aged 0-59 surveyed who were sick in the previous 2 weeks.

21. *Children with fever receive appropriate treatment.* Proportion of children with fever who received an appropriate antimalarial treatment (in malaria risk areas).

Numerator:Number of children aged 0-59 with fever in the previous two weeks who
received a locally recommended antimalarial

Denominator: Total number of children aged 0-59 months surveyed with fever in the previous two weeks

¹³ Insecticide-treated net includes immersion in an insecticide solution and/or regular direct spraying.

- 22. *ORT use rate*. Proportion of children with diarrhoea who were given ORS and/or a recommended home fluid.
 - Numerator: Number of children aged 0-59 months with watery diarrhoea in the previous two weeks who were treated with ORS and/or a recommended home fluid
 - **Denominator**: Number of children aged 0-59 months surveyed who had watery diarrhoea in the previous two weeks
- 23. *Children with pneumonia receive an antibiotic from a trained provider.* Proportion of children with pneumonia who were given an antibiotic by a trained provider.
 - Numerator: Number of children aged 0-59 months with cough and fast and/or difficult breathing in the previous two weeks who received an antibiotic from a trained provider
 - **Denominator**: Number of children aged 0-59 months surveyed who had cough and fast and/or difficult breathing in the previous two weeks
- 24. *Caregiver knows at least two signs for seeking care immediately.* Proportion of caregivers of children aged 0-59 months who know at least 2 signs for seeking care immediately when their child is sick.
 - **Numerator:** Number of caregivers of children aged 0-59 months who know at least 2 of the following signs for seeking care immediately¹⁴: Child not able to drink or breastfeed, child becomes sicker despite home care, child develops a fever (in malaria risk areas or if child is aged less than 2 months), child has fast breathing, child has difficult breathing, child has blood in the stools, child is drinking poorly
 - Denominator: Number of caregivers of children aged 0-59 months surveyed

¹⁴ Local terms to be identified

Annex E

Tool for Estimating Medicine Needs and Costs for Treatment of ARI











Annex F

Estimating Medicine Needs and Costs for Treating Diarrhoea

EXERCISE: Estimate medicine needs and costs for treating diarrhoea

In this exercise, you will estimate the quantities of ORS packets and zinc tablets needed for treating diarrhoea at first-level health facilities and in the community and estimate the cost of those medicines. Use the following information and worksheet to make these estimates for a region in Integratia.

Read the following information:

- It is the end of 2007. The manager of child health in the Coastal Region of Integratia is estimating medicine needs so that she can inform the essential medicines programme.
- The population of the Coastal Region of Integratia is about 5 000 000. About 15% of the population is under 5 years of age.
- The programme manager set a target for 2008: 10% of children will be brought to a health facility when the child is sick with diarrhoea. (This estimate was based on survey information from 2004, which found that 7% of diarrhoea cases were treated at a facility.)
- She estimates that in 2008 about 60% of the cases of diarrhoea who come to a facility will be assessed and treated correctly (will receive ORS and zinc tablets). This estimate is based on the fact that follow-up after IMCI training found that 80% of cases were treated correctly. However, not all health staff who manage sick children will be trained in IMCI by the end of 2008.
- The programme manager also estimates that in 2008 40% of cases of diarrhoea will be treated at home or in the community. She estimates that in 5 years, all episodes treated at home or in the community will be given ORS and zinc. However, she expects that by the end of 2008, only 50% of episodes will be treated with ORS and only 15% will be treated with zinc. Plans are to increase the availability and access to ORS and zinc for home and community treatment every year and to teach increasing numbers of CHWs and family members to use them for treatment of diarrhoea.
- She estimates that 50% of childhood diarrhoea cases will receive no treatment in 2008.
- Based on a household survey, the annual incidence rate of childhood diarrhoea is 2 episodes per child per year.

Refer to the information above as needed to complete the worksheet on the next page.

WORKSHEET: Estimating Medicine Needs and Costs to Treat Child Diarrhoea

A. ESTIMATE THE NUMBER OF CHILHOOD DIARRHOEA CASES THAT CAN BE TREATED AT FIRST-LEVEL HEALTH FACILITIES

A-1 Estimate the number of children under age 5 years

Х	K =	:	
population of the region	proportion of the population under age 5	number of children under age 5 in the region	
A-2 Estimate the expect	ed cases of diarrhoea		
X	ζ		
number of children under age 5 in the region	expected cases of diarrhoea per child per year	number of childhood diarrhoea cases	

A-3 Estimate the number of childhood diarrhoea cases who will be treated at health facilities

X=		_ =	
number of childhood diarrhoea cases	proportion of all child diarrhoea cases to be treated at first-level health facilities	_	number of childhood diarrhoea cases to be treated at first-level health facilities

A-4 Of the childhood diarrhoea cases to be treated at first-level health facilities, estimate the number that will be given standard case management of diarrhoea (ORS and zinc)

	X =	=
number of childhood	proportion of cases treated	number of cases to be given
diarrhoea cases to	at first-level health facilities that	standard case management of
be treated at first- level health facilities	will be treated correctly (with ORS and zinc)	diarrhoea (ORS and zinc) at first-level health facilities

A-5 Estimate the number of childhood diarrhoea cases who will be treated at home or in the community

>	[_ =
number of childhood	proportion of all child	number of childhood diarrhoea
diarrhoea cases	diarrhoea cases to be treated at	cases to be treated at home or in
	home or in the community	the community

A-6 Of the childhood diarrhoea cases to be treated at home or in the community, estimate the number that will be given standard case management of diarrhoea (ORS and zinc)

	x =	·
number of childhood diarrhoea cases to be treated at home or in the community	proportion of cases treated at home or in the community that will be treated with ORS	number of diarrhoea cases to be given ORS at home or in the community
number of childhood diarrhoea cases to be treated at home or in the community	$x = \frac{1}{proportion of cases treated} = \frac{1}{1000}$	number of cases to be given zinc at home or in the community

B. ESTIMATE QUANTITIES OF MEDICINES NEEDED FOR TREATING DIARRHOEA CASES

For cases of childhood diarrhoea to be given standard case management with ORS and zinc, plan to provide ORS packets, 2 per case, and zinc, one blister of 10 tablets per case.

B-1 Estimate the number of packets of ORS needed to treat childhood diarrhoea cases at health facilities and at home or in the community

(+)	x 2 packets per case = $\frac{1}{2}$	
number of cases to	number of cases to		packets of ORS
be given ORS at a	be given ORS at home		
health facility	or in community		

B-2 Estimate the number of blisters of zinc needed to treat childhood diarrhoea cases at health facilities and at home or in the community

(+	·) x 10 tab	lets per case =
number of cases to	number of cases to	tablets of zinc
be given zinc at a health facility	be given zinc at home or in community	
5	•	

tablets of zinc

C. ESTIMATE QUANTITY OF MEDICINES TO ORDER AND COST

In column b, enter the required amount of each medicine estimated in section B. For column c, multiply by 0.5 to estimate the additional amount for reserve stock (for times of unforeseen use such as during epidemics and logistics breakdowns) plus an amount for wastage (due to improper storage or transport, spoilage, etc.) Record the sum of b + c in column d.

In Integratia, the cost of a packet of ORS is \$0.10. The cost of a blister of 10 zinc tablets is also \$0.10.

a Medicine	b Estimated amount to treat cases	c Proportion added for reserve (25%) and wastage (25%)	d Amount to order (b + c)	e Cost per packet/blister	f Total cost
ORS packets					
Blisters of zinc tablets					

Annex G

Short Programme Review

Short Programme Review

A Short Programme Review (SPR) is a process for evaluating the results of implementation of a programme for child health every 1–2 years. For an SPR, the programme gathers together and summarizes the monitoring and other data that has been collected by various methods so that a review team may then analyse and interpret the results. The SPR is most often organized by the national level.

The SPR is conducted in a team which includes ministry of health programme staff (central, regional, district, and facility levels could be included), staff from partner organizations who are involved in child health programming, local experts with knowledge of the programme, and an external facilitator. It is recommended that the size of the review team be limited to 10-20 participants to make work more efficient. It is important to include representatives of staff responsible for implementing the programme at different levels of the health system.

The objectives of an SPR are to:

- assess how well the programme implemented its plans to deliver child health interventions
- assess progress towards achieving population-based programme coverage targets (where data are available)
- identify problems the programme has faced and suggest solutions
- develop recommendations about what the programme needs to do

The SPR includes 7 steps which the SPR team completes in sequence in about one week. Participants start by reviewing the status of maternal and child health using available data. They then review how well the program has implemented child health interventions. Activities in each of the main programme areas in the workplan are reviewed.

Depending on the data collection activities that have been carried out by the child health programme(s) or other organizations, the team may review results of health facility surveys, small-scale household surveys, cumulative monitoring data, and any additional data that may be available (such as from a DHS or MICS3 survey, or research). (The data should have been collected in the previous year or two, but some may be older.)

Based on the findings, the team defines the main problems for further analysis. They then discuss these problems and identify feasible solutions. They use these solutions as the basis for developing detailed recommendations about what the programme should do in major activity areas, and then decide on next steps for ensuring that these recommendations are incorporated into workplans.

The SPR helps the programme identify which areas need strengthening and set new priorities if needed. The SPR should lead into the development of a new one-year implementation plan. Feedback should also be given to staff at all levels to help improve practices and awareness.

A protocol for conducting an SPR is available.¹⁵ It describes the preparation required, provides instructions for each step of the review and includes worksheets and handouts.

¹⁵ Using Data for Reviewing Child Health Programme (Guidelines for conducting short programme reviews). Geneva, World Health Organization, 2009.

Annex H

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Step 3. Decide on programme activities

In step 2, you completed a review of the implementation status of the child health programme including coverage with the current interventions (if possible) and the activities implemented. You also thought about additional activities and resources needed in the next plan. Now you will use that analysis to plan for the future.



In step 3, you will plan for the next year (or next planning period), first affirming the programme's goals and objectives, then setting activity-related targets, and thinking about activities that will be needed to achieve the targets. Because activities need to be appropriate for local conditions, consider local policies and the availability of staff and other resources before deciding on additions or changes in activities.

3.1 Affirm the programme's goals and objectives

Goals and objectives provide the overall direction for the child health programme. As part of the assessment of the programme, statements of the goals and objectives of the child health programme were found in the national-level strategic plan or implementation plan, and used as milestones for assessing the programme. As a first step in planning for next year, the planning team should review the goals and objectives and affirm them. These should provide a framework and should be kept in mind during all planning for the programme.

Goals and Objectives of the Integratia Maternal and Child Health Programme

Goals:

- To reduce mortality in children under age 5 years
- To reduce the incidence of malaria and diarrhoea in children under age 5 years
- To reduce the prevalence of underweight and stunting in children under age 2 years
- To reduce the maternal mortality rate

Objectives:

- · To increase the proportion of pregnant women who receive antenatal care
- To increase the proportion of pregnant women who have skilled care at birth
- To increase proportion of pregnant women with complications who receive emergency obstetric care
- To increase the proportion of mothers and newborns who receive postnatal care
- To increase the proportion of newborns with complications who receive emergency newborn care
- To increase the proportion of infants under 6 months who are exclusively breastfed
- To increase the proportion of children who are fully immunized at one year of age
- To increase the proportion of children who sleep under an insecticide-treated bednet
- To increase the proportion of children with diarrhoea who receive ORT
- To increase the proportion of sick children who receive an appropriate antibiotic or antimalarial when they need it

3.2. Set activity-related targets

A target is a quantified statement of *desired change* in a key indicator of programme implementation, such as population-based coverage with an intervention or an important activity-related indicator. A target specifies the expected level to be achieved over a given time period in a specified geographic area. The actual level of achievement after the given period of time will be compared to the target to determine whether or not the programme is being implemented effectively.

Impact targets are expected changes in under-five mortality, morbidity, or nutritional status as a result of programme implementation. These are longterm targets and will take several years (e.g. 5–10 years) to achieve. Impact targets are set at the national level and appear in the strategic plan for child health.

Coverage targets are expected changes in intervention coverage in the target population. These targets are usually medium-term targets because they may take 2–3 years to achieve. Coverage targets for interventions that require significant changes in the knowledge and practices of caregivers or health workers, and which require more health system support, often take longer to achieve. Coverage targets are usually set at the national and/or regional levels and are evaluated by that level. Coverage targets are provided as guidance to lower levels. Activity-related targets are expected changes related to improvements in availability, access, demand, or quality of services, or knowledge of families and communities. These targets should be met as the programme is implemented. For this reason activity-related targets are often short-term (e.g. 1–2 years) targets. Activity-related targets are based on the activities that are planned in a specific geographic area or the **results** that can be expected when planned activities are implemented. They are therefore usually set at the district or other level close to implementation.

For example, one district set the activity-related targets listed below.

In the Mira District, by the end of 2009:

- 75% of health facilities (9 out of 12) will have at least 60% of health workers who care for children trained in IMCI
- 75% of health facilities will have no stock-outs of essential medicines and vaccines in the last quarter of the year
- 90% of children leaving a health facility will be up-to-date on their immunizations
- 70% of sick children who come to a health facility and who need an antibiotic and/or antimalarial will be prescribed the medicine(s) correctly
- 90% of health facilities will have received at least one supervisory visit in the previous 3 months
- 40% of communities will have a CHW trained to provide community case management of diarrhoea, fever and pneumonia
- 25% of caregivers will have attended a group meeting about key family and community practices or had a home visit in the previous 6 months
- 40% of communities will have a local supply of insecticide-treated bednets

You will revise and add to activity-related targets for your geographic area as the programme adds new activities. However, the list of targets should never become too large. A limited number of targets should be selected and should be kept simple, so that they will be useful for planning activities and resource needs, and feasible to assess.

What makes a good target?

To be useful, targets need to be Specific, Measurable, Achievable, Relevant, and Time-bound (SMART). Criteria for reviewing targets are summarized below:

- ✓ Specific: This means clear and unambiguous. Targets should express what is expected, by what date, and at what level (e.g. 50%).
- ✓ Measurable: This means that it should be possible to collect data to measure achievement using available methods. Numbers and percentages are used to indicate how much change is expected.
- ✓ Achievable: This means that it should be possible to reach targets with available interventions and resources, in the amount of time available.

- ✓ Relevant: This means that they should be consistent with national objectives and priorities. They should also be appropriate for the scope of the activities planned in the geographic area. For example, only the districts that are planning to train community health workers to do community-based management of pneumonia, malaria, and diarrhoea in the next 2 years would write targets related to availability or quality of, or family members' knowledge about, community-based treatment of these childhood illnesses.
- ✓ Time-bound: This means that targets should specify a starting point and an end point. Activity-related targets are set for a relatively short period of time, such as for 1–2 years; coverage targets are usually set for 2–3 years; impact targets are set for 5–10 years. This encourages local planning of activities and setting of activity-related targets that are realistic and meaningful.

General Principles of target setting

1. Review indicators and select a few for which you will set targets.

The child health programme needs targets for coverage with key interventions and for a few important activity-related indicators.

Population-based coverage targets may be for prevention (e.g. exclusive breastfeeding rate) or for treatment (e.g. ORT use rate). **Coverage targets are usually set at the national level. Regions and districts will aim to achieve those same targets for the target population in their geographic area.**

Activity-related targets can be set for completion of important activities, such as supervision or training, or for results of activities, such as improvements in availability of services, access, demand, or quality of care, or knowledge of families and communities. Activity-related targets can best be set at the district or regional level, where the actual activities will be planned and implemented.

2. Set targets based on available data, tools and field experience.

Setting a target requires estimates. Make the following estimates as best you can:

- An estimate of the current level of achievement for the indicator based on available data. It is important that you set a target based on a realistic starting point. Data may be available from routine reports of activities, or they may be available from surveys.
- An estimate of how programme activities will change the current level of the indicator, based on
 - how intensively and effectively the activities will be implemented. Consider the type of activities planned, the geographic scope of implementation, and the extent of human, material and financial resources that will be mobilized.
 - the likelihood that the activities will lead to the desired results, that is, improved availability, access, demand, quality, or knowledge. This estimate is usually based on field experience, programme plans, and reports from staff.

• An estimate of the number of activities planned and their cost. Cost estimates can be produced using specific costing tools developed for this purpose. Examples include the WHO child health cost estimation tool, the Marginal Budgeting for Bottlenecks.³ Other estimates must be judgments based on field experience. (More information on costing and budgeting is in section 6.3 of this module.)

Then state a target for the level of achievement that is **desired** by a given date and **feasible** to achieve with available time and resources.

The example on pages 37–38 demonstrates a number of factors that must be estimated to calculate a feasible target.

3. Learn from previous targets

If activity-related targets were not met during the previous year, it is important to understand why, so that future targets and plans can be more realistic. Many factors can influence the speed and effectiveness of programme implementation.

³ Marginal Budgeting for Bottlenecks (MBB toolkit) was developed by the World Bank and UNICEF for estimating costs of overcoming barriers to implementing health and nutrition activities in order to improve coverage of interventions. For more information on costing and budgeting, see section 6.3.

EXAMPLE: Calculating a target for training health facility workers in IMCI

Indicator: Proportion of health facilities in the Coastal Region with at least 60% of health workers caring for children trained in IMCI

Current level of achievement:

- Proportion of health facilities with at least 60% of health workers who care for children trained in IMCI currently = 46% at end of 2007. (See assessment on page 20.)
- There are 13 health facilities in the area (5 districts) and 6 facilities currently qualify to be counted as having 60% of health workers trained in IMCI.
- There has been some staff turnover, so 1 facility that had been counted previously as having at least 60% trained staff now no longer has 60% trained.

At first-level health facilities, usually there are 2 to 4 health workers who care for children. Therefore, if one out of two or three workers (50% or 33%) is trained in IMCI, the facility is not counted in this indicator. If two out of two (100%) or two out of three (67%) workers are trained, then the facility will exceed 60% staff trained. However, if one trained health worker leaves, the facility may no longer have 60% staff trained until a replacement is placed and trained.

The national child health programme set a target for quality of standard case management: 90% of children seen at health facilities who need an antibiotic or an antimalarial will be prescribed the medicine correctly. Therefore, in order to be able to provide this level of IMCI standard case management, the manager's goal is to train every health worker who manages children in IMCI and to train new health workers as soon as possible.

The manager keeps a chart of training needs (below), which she updates quarterly, to count the workers in need of IMCI training at each health facility.

Facility	Number of health workers caring for children	Number of those health workers trained in IMCI	60% of health workers trained in IMCI?	Number of health workers needing training in IMCI
А	4	3	YES	1
В	5	3	YES	2
С	3	1		2
D	5	2		3
Е	3	0		3
F	3	2	YES	1
G	2	2	YES	0
Н	4	2		2
I	3	2	YES	1
J	1	1	YES	0
К	2	0		2
L	2	1		1
М	3	1		2
TOTAL	40	20	6 facilities	21

Coastal Region IMCI Training Needs -- December 2007
Planned activities:

Activities planned for 2008 include conducting two IMCI training courses for 20 health workers (10 at each course) and doing follow-up after training visits to all 20 health workers. Funding is secured for these activities.

Setting the target:

The manager hopes to include all the health workers who need IMCI training in the training courses, so that 100% of facilities would have at least 60% of health workers who care for children trained in IMCI and followed-up by the end of 2008. However, in case there is difficulty arranging for health staff from every facility to attend one of the two courses, or in case there is staff turnover and the replacement worker is not trained, the manager decides to allow for one facility to not qualify as having 60% of health workers trained. Therefore, the manager sets the target as follows:

Target: By the end of 2008, 90% of health facilities in the Coastal Region will have at least 60% of health workers who care for children trained in IMCI.

Figure 15 shows the other targets set by the manager.

Example: Targets for Child Health

The national strategic plan for child health in Integratia stated the following impact targets:

- By 2015, under-five child mortality will be reduced by 25%.
- By 2015, neonatal mortality will be reduced by 20%.

The national level also set coverage targets that the programme manager in the Coastal Region will aim to achieve. (See left column below.)

In the Coastal Region, health facilities have good supplies of medicines, and most facilities have at least one health worker trained in IMCI (75% of facilities in mid-2007). However, availability and access to health facilities is a problem for many outlying villages and certain cultural groups, so the programme has been training CHWs and supplying them with antibiotics to provide community case management of pneumonia. At the end of 2006, 35% of villages had a CHW trained in community case management of pneumonia. Most of these CHWs were also trained in infant feeding counselling.

In 2008, the child health programme in the Coastal Region plans to increase the number of facilities with at least 60% IMCI-trained staff and ensure the quality of case management. There will also be significant efforts to further increase the number of villages that have a CHW who is trained and supplied to manage pneumonia and to give infant feeding counselling. Some catch-up training activities will be needed to identify and train about 10% of the CHWs who received training only in pneumonia management and who need to be trained to do infant feeding counselling. An NGO plans to provide significant support to help establish breastfeeding and nutrition support groups.

At the end of 2007, after making careful estimates, the programme manager for the Coastal Region set activity-related targets for the end of 2008 for the child health programme in her region. These are listed in the right column.

Coverage targets (set by national level)	Activity-related targets for the end of 2008 in the Coastal Region
By 2010, 70% of children under 5	By the end of 2008, 90% of health facilities will have at least 60% of health workers caring for sick children trained in IMCI.
years of age with pneumonia will receive an appropriate oral antibiotic.	75% of health facilities will have received at least one supervisory visit that included observation of practices in the previous 6 months.
	50% of villages will have at least one CHW trained in community case management of pneumonia.
	100% of trained CHWs will have antibiotics available for treatment of pneumonia.
By 2010, 60% of children aged 6-9	By the end of 2008, 65% of villages will have at least one CHW trained in infant feeding counselling.
months will receive breast milk and appropriate complementary feeding.	100% of trained CHWs will have child health counselling materials available and in use.
	50% of villages will have breastfeeding/nutrition support groups established.
	75% of caregivers of infants will have received at least one child nutrition counselling session at home or in a health facility in the previous month.



EXERCISE D – Set a target for improved quality of care

In Part 1 of this exercise you will review some statements and select the ones that would be good example targets for the programme in a region.

In Part 2, you will use a worksheet to set a target for improved quality of care in the Metropolis Region of Integratia.

Part 1: Answer questions about target setting.

- 1. It is the end of 2007, and the child health programme in the region is setting targets for quality of care at health facilities. The 2006 health facility survey showed that 35% of sick children under 5 years of age with diarrhoea received ORT correctly. Which of the following would be a good example of a target for the programme, and why?
 - a. Improve services at all health facilities.
 - b. By the end of 2008, 50% of children under age 5 sick with diarrhoea and seen at health facilities will receive ORT.
 - c. By the end of 2012, 80% of children under age 5 sick with diarrhoea and seen at health facilities will receive ORT.
- 2. It is the end of 2007, and the child health programme in the region is setting activityrelated targets for improving prevention and treatment of illness at home and in the community. Which of the following would be the best example of an activity-related target for the programme, and why?
 - a. By 2009, 80% of villages will have at least one community health worker trained in promoting key practices.
 - b. By 2009, 80% of health facilities will have immunization services available daily.
 - c. By 2009, 80% of children coming to the health services will receive correct treatment for pneumonia.

Part 2: Set a target for improved quality of care in the Metropolis Region

Read the following background information, which you will use to set a target.

At the end of 2007, the programme manager of the Metropolis Region of Integratia wants to set targets for the quality of case management provided to children coming to first-level health facilities. In the first phase, IMCI is being implemented in 4 of 10 districts in the region. She decides to write a target for the proportion of children needing an antibiotic and/or antimalarial who will be prescribed the medicine correctly, by the end of 2009.

Baseline health facility survey:

A baseline health facility survey was conducted in late 2005 in the 4 focus districts before training was begun. The survey randomly selected 8 facilities and observed 200 health worker–sick child interactions. An indicator of quality of care was calculated:

- Number of sick children (aged 1 month to 5 years) needing an antibiotic and/or antimalarial = 110
- Number of these sick children correctly prescribed an antibiotic or antimalarial = 30
- In 2005, 27% of sick children attending a health facility (30/110) needing an antibiotic or antimalarial were prescribed the medicine correctly

Training activities completed:

One IMCI training course was conducted in 2006 and included health workers from the four focus districts. Another training course was conducted in 2007. A total of 24 health workers have been trained in IMCI. (Two of them no longer work in the district).

District	Number of staff who care for children	Number trained now	Number needing to be trained
Bahari	25	7	18
Tesh	12	7	5
Muta	19	4	15
Zimba	23	4	19
Total	79	22	57

Metropolis Region December 2007 Health workers who care for sick children at first-level facilities

Follow-up after IMCI training:

Observation-based data on case management practices of IMCI-trained health workers are available from follow-up visits to 22 of the health workers trained in 2006 and 2007. After training, 87.5% of sick children (14/16) needing an antibiotic or antimalarial were prescribed the medicine correctly.

Number of trained health workers observed	Number of sick children seen	Observations where children needed an antibiotic and/or antimalarial	Observations where child was prescribed medicine(s) correctly
22	22 (one per worker)	16	14

Plans for 2008:

The programme manager plans to conduct an additional four IMCI training courses in 2008 and 2009 (2 each year) and conduct follow-up visits to all trainees. The standard 11-day IMCI training course will be conducted for 10 staff each time.

Use the preceding information to complete the target worksheet below for the 4 IMCI Districts in the Metropolis Region of Integratia.

TARGET WORKSHEET:

Proportion of Children Coming to First-Level Health Facilities in the 4 IMCI Districts Who Need an Antibiotic and/or Antimalarial Who will be Prescribed the Medicine Correctly

1. Estimate the proportion of health workers at all health facilities in the 4 IMCI districts that will have been trained 2 years from now.

(+) divided by _	=
number of health	number to be	total number of
workers trained	trained in the	health workers
now	next 2 years	who treat children

Enter this proportion in box A. in the table below.

2. Expected proportion of trained health workers who will prescribe antibiotics and/or antimalarials correctly (from follow-up of IMCI-trained health workers)

=

Enter this proportion in box B. in the table below.

3. Estimate proportion of health workers at all health facilities who will **not** have been trained 2 years from now.

1.0 minus proportion that have been trained (see 1, above) = _____

Enter this proportion in box D. in the table below.

4. Estimate the proportion of health workers not trained in IMCI but who will prescribe antibiotics and/or antimalarials correctly (from baseline health facility survey) =

Enter this proportion in box E. in the table below.

Children coming to first-level health facilities in the 4 IMCI districts in 2 years who will see a trained worker

А.	В.	C.
Proportion of health workers trained in IMCI in 2 years	Proportion of trained health workers who will prescribe antibiotics and/or antimalarials correctly	Proportion of children who need an antibiotic and/or antimalarial who will be seen by a trained provider and prescribed the medicine correctly
		A. x B. =

Children coming to first-level health facilities in 2 years who see an untrained worker

D.	E.	F.
Proportion of health workers not yet trained in IMCI in 2 years	Proportion of health workers not yet trained in IMCI but who will prescribe an antibiotic and/or antimalarial correctly	Proportion of children who need and antibiotic and/or antimalarial who will see an untrained health worker and be prescribed the medicine correctly
		D. x E. =

For all children coming to health facilities in 2 years

Overall proportion of children coming to health facilities who need an antibiotic and/or antimalarial who will be prescribed the medicine correctly

C. + F. = _____

QUALITY OF CARE TARGET

Complete the target below:

By the end of the year _____ in the 4 IMCI districts of the Metropolis Region, _____% of children coming to health facilities who need an antibiotic and/or antimalarial will be prescribed the medicine correctly.

When you have completed this exercise, discuss your work with a facilitator.

3.3 Decide on activities to implement interventions/packages in the home and community, first-level health facilities and referral facilities

Activities describe how interventions will be implemented and what will be done **by the programme** to enable health staff or the community to implement the interventions. Common types of activities are advocacy, pre- and in-service training, communication, improving supply of medicines and equipment, and supervisory visits. The main activity areas are listed in Figure 10 (page 22).

3.3.1 Think about the key interventions to implement along the two continua of care

To start planning programme activities, keep in mind that these should:

- increase coverage of interventions (see Figure 16 below)
- relate to the achievement of activity-related targets
- increase equity and
- contribute to the two continua of care.

Figure 16

Plan activities that will contribute to increased coverage

Coverage Target 🕻	Results 🧲	Activities
700/ /	Increase knowledge of when to seek care	 Train CHWs in counselling on key family practices Meet with village/community health committee to introduce community case management of pneumonia.
70% of children who have pneumonia will receive	Increase availability of community case management of pneumonia	 Recruit and train CHWs in community case management of pneumonia. Provide regular supportive supervision to trained CHWs. Ensure supply of antibiotics to trained CHWs.
treatment with an antibiotic	Increase availability of case management in health facilities	 Train health workers in additional health facilities in IMCI. Do follow-up visits after IMCI training. Ensure regular supplies of essential medicines in health facilities.
	Increase quality of case management in health facilities	 Conduct supportive supervision of case management in health facilities.
	Increase availability of counselling on infant feeding in the community	 Train CHWs to provide counselling on breastfeeding. Provide health staff or CHWs with materials on infant feeding and support to use with women's support groups.
60% of children will be exclusively breastfed	Increase exposures of the community to messages on exclusive breastfeeding	 Provide posters promoting exclusive breastfeeding for posting at health facilities, health posts, government office, shops, public places. Establish women's support groups.
months	Increase quality of counselling at health facilities	 Provide training in infant feeding counselling with emphasis on exclusive breastfeeding to health facility staff. Provide supportive supervision of health staff doing infant feeding counselling.
	Increase baby-friendly practices at the district hospital	 Introduce 10 Steps to Successful Breastfeeding in the hospital.

Plan who will deliver the interventions/packages at each level of the health system, and what type of activity they will do (e.g. provide information, provide care, counsel). Figure 17 shows an example of how one programme planned to deliver key interventions along the two continua of care. Across the top of the table are the levels of the health system, and down the left side are the life stages.

Figure 17 EXAMPLE WORKSHEET: Who Will Deliver Interventions along the Continua of Care

Continua			o will deliver interventi	ons
	Interventions/ packages*	In the home and community	At first-level health facilities	At referral facilities
Pregnancy	ANC	CHWs promote ANC- seeking and birth preparedness	Nurses and health assistants provide ANC and refer for complications	Nurses and doctors provide ANC for high-risk pregnancies and manage complications of pregnancy
Birth and Immediate postnatal period	Skilled care at birth Emergency obstetric and newborn care	CHWs promote skilled care at birth	Skilled birth attendants assist at delivery, give immediate newborn care, detect obstetric complications and refer	Skilled birth attendants assist deliveries and manage complications of labour and birth
Newborn period	Routine postnatal care of mother and newborn	Skilled birth attendants and/ or CHWs do home visits to provide care, counsel and refer if needed	Nurses and health assistants give postnatal care, refer for complications	Nurses, doctors manage postpartum complications and severe newborn illness
Infancy and childhood	Community case management IMCI (at first-level facilities) Community promotion of key family practices Immunization	CHWs manage illness CHWs provide education to individuals and groups on key family practices	Health workers manage illness, immunize, provide care for HIV- exposed and HIV- infected children, and refer for severe illness	Nurses and doctors implement ETAT and manage severe childhood illnesses

* Packages are defined in Annex B, page 118.

3.3.2 Plan activities in the major activity areas

The main activity areas are listed in Figure 18. (To review details of what may be included in each area, see Figure 10, page 22).

Implementing child health interventions will include providing services (such as immunization, or case management of illness), providing education or counselling, and providing commodities (such as insecticide-treated bednets or ORS).

You must plan in detail for all activities at each level of the health system.

Community-based intervention packages will involve more activities in the areas of improving community supports and communication with families, in addition to training of CHWs. Facility-based intervention packages will involve more work on training staff, strengthening supplies of medicines and equipment, and supervision. Figure 18

Major activity areas for delivering child health interventions

- 1. Advocacy/Resource mobilization
- Training/Human resource development
 Strengthening supplies of medicines and equipment
- 4. Strengthening referral pathways
- 5. Communication/Developing community supports
- 6. Supervision
- 7. Monitoring progress
- 8. Other

When planning activities, you will need to ensure that activities will be of good quality, so that they will result in interventions being delivered effectively. Annex C provides questions and criteria for planning or reviewing the quality of activities in each of the main activity areas. For example, training will be more effective when appropriate technical guidelines are used, when the time allocated to training is adequate, when training involves practice, and when there is follow-up after training.

3.3.3 Plan activities that will contribute to increasing availability, access, demand, or quality of services or knowledge of families and communities

Plan activities that will contribute to increasing one or more of the following aims:

- a) availability of services
- b) access to services
- c) demand for services
- d) quality of services
- e) information and knowledge of families and communities

Eliminate or revise activities that do not contribute to one or more of these aims.

a) Increase availability of services

Availability means that the health services (preventive and treatment) are available for those who need them. For example, an activity to increase the availability of health education on breastfeeding could be teaching village health committees to run health education groups on this topic. Building new infrastructure (such as a community health facility), increasing the opening hours of a health facility, or increasing the number of health workers available to

provide the service would increase the availability of services. Recruiting, training and supplying community health workers with insecticide-treated bednets and training them in malaria and pneumonia case management can improve the availability and access to services.

Increasing the availability of services, health education, or commodities does not ensure that the target population will use them.

b) Increase access to services

Access means that caregivers are able to reach the health services, when they are available. Possible barriers to access include:

- distance (too far away)
- finances (unable to afford costs of transport, goods or services)
- culture (husband or other family members may not agree for women to take their sick children to a health facility on their own)
- time limitations (women may have other duties in or outside of the household that limit their ability to come to the health services)
- limited opening hours of the facilities

Plan activities that will remove or decrease the barriers. For example, helping the community establish a transportation fund for referral of mothers and children will increase access to referral facilities. It is important that the health services are both available and accessible.

c) Increase demand for services

Demand for services means that clients are motivated to use the health services. Activities that increase the knowledge of family and community members about the availability of the health services and their benefits are likely to increase demand. Providing quality services including counselling is likely to increase community members' motivation to use services. Reduction of fees for poor families, or insurance schemes, may also increase demand and use.

d) Improve quality of services

Quality means that the health services are provided according to technical standards, and in a way that is appropriate for the target population. Clinical care should be provided using standard case management approaches, and health workers should listen and be respectful of clients. Commodities such as bednets should be available and appropriately priced. Key child health messages should be consistent with WHO norms and standards; those delivering messages should do so in a way that is understandable and relevant to local communities.

Training health workers can improve the quality of services. Activities to ensure that facilities have all the medicines and other supplies needed to provide services are also needed for quality. Supervision, which is in many places performed inadequately and too infrequently, is an essential activity for increasing and maintaining quality.

Improved quality is associated with improved client satisfaction and an increased likelihood that the client will return. Services can be available and accessible, but if they are poor quality, they are less likely to be used and the programme will not increase coverage.

e) Increase knowledge of families and communities related to child health

In order to improve the health of children, the caregivers of young children must:

- provide good nutrition (exclusive breastfeeding and safe complementary feeding)
- practise behaviors in the home that will prevent illness (e.g. sleep under an insecticidetreated bednet, use potable water and covered latrines, wash hands before preparing food and after using the latrine, seek birth support from a skilled attendant)
- seek preventive services when appropriate (e.g. immunization)
- recognize when their child is sick and provide good home care for illness (e.g. give sick children increased fluid and continue feeding)
- seek care for a sick child when needed (e.g. bring a sick child with fast or difficult breathing to a trained provider)

Improving the knowledge of caregivers and other community members is one step towards changing the behaviours of family and community. They will also need to be convinced, motivated and have the necessary resources to practise the new behaviours.

For each activity that you decide to include in your plan, you should be able to explain which of the above aims it contributes to.

3.3.4 Also consider feasibility of the activities

When deciding on activities:

- Consider what has worked or not worked in the past. When you assessed programme status, you reviewed the previous activities and how well they were done. Take your assessment into account when planning future activities. You may continue some of the same activities, make improvements in others, or initiate new activities.
- Ask for input from experienced local staff and others with knowledge of local conditions.
- Keep in mind how much time will be needed to complete an activity adequately.

On the next page is a sample WORKSHEET: Plan Activities to Implement Intervention *Packages* that was completed by a manager in the Mira District. She planned activities for delivering c-IMCI and promoting skilled care at birth in the home and community, and for delivering IMCI at first-level health facilities.

Figure 19 EXAMPLE: Mira District

WORKSHEET: Plan Activities to Implement Intervention Packages

In the Home and Community

Intervention package(s): c-IMCI – 1) home visits for newborn care, 2) management of diarrhoea, pneumonia, and fever by CHW, 3) promotion of key practices (exclusive breastfeeding, appropriate complementary feeding, sleeping under an insecticide-treated bednet, immunization, care-seeking for illness) 4) promotion of skilled care at birth

Activities:

Advocacy/Resource mobilization

- 1 Identify possible donors to fund supplies of insecticide-treated bednets.
- 2. Advocate for evidence-based policy on community management of pneumonia.
- 3. Mobilize resources for training of CHWs on community-based management of childhood illness.
- 4. Advocate policy for conducting home visits for postnatal check-up of mothers/newborns in the first two days after birth.

Training/Human resource development

- 1. Plan recruitment of additional CHWs to cover the villages in the district.
- 2. Assess costs of recruitment.
- 3. Identify CHWs from at least 25 villages to be trained in community case management (of diarrhoea, fever, pneumonia) and c-IMCI counselling.
- 4. Conduct courses to train CHWs to counsel caregivers on selected key family and community practices.
- 5. Conduct CHW courses on management of illness.

Strengthening supplies of medicines and equipment

- 1. Supply CHWs with ORS and zinc.
- 2. Provide CHWs with ARI timers, thermometers and scales for home visits.
- 3. Ensure that CHWs are supplied with antibiotics and antimalarials.

Strengthening referral pathways

- 1. Meet with mothers' groups to promote establishment of a transportation fund for when referral is needed.
- 2. Develop use of referral notes at health facilities.

Communication/Development of community supports

4. Develop counselling cards for CHWs to use when counselling on key family practices for child health.

Supervision

- 1. Improve the quality of the supervisory checklist for CHWs.
- 2. Schedule visits by supervisors to CHWs for follow-up after training and schedule quarterly visits thereafter.

Monitoring progress

- 1. Develop registers for CHWs to record home visits and sick child consultations.
- 2. Identify indicators to be monitored.

EXAMPLE: Mira District (continued)

WORKSHEET: Plan Activities to Implement Intervention Packages

In First-level Health Facilities

Intervention package(s): IMCI

Activities:

Advocacy/Resource mobilization

- 1. Ask for funds to enable 4 health facilities to open 2 hours earlier on 2 days per week.
- 2. Mobilize funds for undertaking activities below (i.e. training, fuel for supervision and outreach, etc).

Training/Human resource development

- 1. Conduct 2 courses to train 20 facility staff in IMCI standard case management.
- 2.
- 3.

Strengthening supplies of medicines and equipment

- 1. Review district-level inventory, ordering and distribution practices.
- 2. Conduct special visits to 5 health facilities to assess causes of frequent stock-outs of medicines.

3.

Strengthening referral pathways

1. Orient referral-facility staff to use referral notes from first-level health facility workers and to send a counter-referral note back to the health facility, describing care given.

2.

3.

Communication/Development of community supports

- 1. Plan communication with caregivers to be delivered while they wait in health centres.
- 2. Procure posters (breastfeeding, immunization) for display at all facilities.

Supervision

- 1. During supervisory visits, alert health staff at facilities to the need to give prompt care to sick children sent for care by CHWs and traditional healers.
- 2. Do follow-up-after-training visits to 20 health staff who receive IMCI training.
- 3. Make quarterly supervisory visits to health facilities (supervise IMCI case management, supplies, etc).

Monitoring progress

- 1. Review patient records and treatment forms and revise if necessary to be consistent with intervention packages.
- 2. Review indicators and revise if necessary.
- 3. Designate staff to compile and analyse monitoring data.

Other - improving availability of and access to services

1. Conduct 2 outreach clinics from Health Facility A and Health Facility E during the warm months to provide immunizations, growth assessment, and Vitamin A supplementation.



EXERCISE E – Plan activities to implement intervention packages

In Part 1 of this exercise, you will prepare an overview of how the intervention packages will be delivered across the continua of care (who will do what at each level) in your programme. In Part 2 you will list specific activities to implement at each of the three levels of the health system.

Locate the pages for Exercise E (pages 14–19) in your **Workbook**. Follow the instructions there to:

- Part 1: Complete the *WORKSHEET: Who Will Deliver Interventions along the Continua of Care.* (Refer to Figure 17 on page 45 if needed.)
- Part 2: Complete the *WORKSHEET: Plan Activities to Implement Intervention Packages*, one page for each level. Decide on key activities that you will include in your plans for the next year.

When you have completed this exercise, discuss your work with a facilitator.

3.4 List tasks in each activity

Activities and tasks describe how interventions will be implemented and are usually stated in a detailed workplan.

A task list describes in detail how an activity will be conducted. Tasks are the sub-steps of an activity; several tasks may be required to complete one activity. A task list is a useful tool for delegating work to staff, and for monitoring that work. Specifying activities **and** tasks in workplans also helps staff understand what they should do.

Figure 20

Example activities and tasks		
The interventions are exclusive breastfeeding and complementary feeding. Staff will counsel pregnant women and caregivers of infants and small children on exclusive breastfeeding and complementary feeding.		
Activities that might be necessary to implement this intervention include:		
• Conduct a Training of Trainers (TOT) for the course "Infant and Young Child Feeding Counselling"		
• Train staff at first-level health facilities in "Infant and Young Child Feeding Counselling"		
• Provide counselling materials to first-level health facilities (posters, flip charts, counselling cards)		
And for the second activity listed (Train staff at first-level health facilities in "Infant and Young Child Feeding Counselling), tasks _that might be necessary to complete this activity include:		
• Budget and schedule the training course		
Designate and schedule trainers		
 Select and invite participants Obtain copies of all training materials and other supplies 		
controlopies of all maning materials and other supplies		

- Secure venue and arrange for lodging, meals and transportation
- Conduct training

Staff who have experience performing a certain type of activity usually know the tasks that should be done. It is important to consult with staff when developing task lists, to make sure that they are accurate, and that no tasks have been overlooked.

How much detail should be specified in a task list? The amount of detail needed will depend on who is responsible for the activity, and how the task list will be used. If the task list will be used to make a schedule or a budget, less detail will be needed. If the task list will be used to describe to staff a new type of activity in a new intervention, more detail will be needed.

In Figure 20, some tasks listed are:

- Budget and schedule the training
- Designate and schedule trainers
- Select and invite participants

This is probably sufficient detail for the MOH training director to understand what is needed in order to make plans and delegate steps. The individual who will "Budget and schedule the training" may make a more detailed task list for that step, such as:

- Select the desired dates of training and number of participants and trainers
- Determine availability of suitable venue and trainers on those dates
- Set dates for training; prepare training schedule
- Determine number of sets of training materials needed and cost (printing, shipping)
- Determine support to be provided to trainers (stipend, per diem)
- Determine costs of venue, other supplies (projector), other costs (meals, coffee/tea breaks)
- Determine per diem for participants, travel costs of participants
- Prepare budget document

The example worksheet below shows two activities from the Mira District child health manager's plans and the tasks in those activities. The manager will need to list key tasks for each activity that will be included in the implementation plan.

Figure 21 EXAMPLE WORKSHEET: List Tasks in Key Activities that You have Planned

Activity	Tasks
1. Conduct 4 c-IMCI counselling courses to	Specify all messages/behaviours that should be included in training; specify counselling skills to be taught.
train CHWs to provide	Review and adapt counselling training materials, counselling cards for CHWs.
health education to caregivers on key	Make or obtain sufficient copies of print materials including counselling cards; obtain other supplies.
family and community	Identify trainers, schedule time of trainers/assistants.
practices.	Set dates and determine locations for 4 courses.
villages to promote	Assign villages/CHWs to one of 4 courses and invite CHWs to attend training on assigned date/location.
birth (add to c-IMCI	Travel to training location with materials and supplies.
counselling course).	Set up for training: venues, seating, refreshments, materials, supplies.
	Conduct training course.
2. Conduct special visits to 5 health	Schedule dates for special visits to the 5 facilities and confirm with the facility's in- charge and supply officer.
facilities to assess causes of frequent	Before visits, review monitoring reports regarding medicine and supplies and discuss possible causes of stock-outs with any knowledgeable district staff.
stock-outs of medicines.	Obtain copies of training/reference materials on supply management and ordering of medicines; obtain quantities of stock cards, ordering forms, etc.
	Visit each facility on the scheduled date. Meet with the in-charge and then with the person responsible for supply to discuss stock-outs, possible causes, concerns.
	Assess appearance of the facility, ordering procedures, stocks of medicines and supplies, records.
	Discuss results with staff; discuss problem and causes; provide instruction and materials, as needed; plan next steps.
	Write report and send copy to each facility.

3.5 Specify types of resources that will be needed for activities

Resources include the financial, material and human resources that are needed to carry out activities. The type of resources required will depend on the activity; the quantity needed will depend on the scope of implementation. As an example, Figure 22 lists types of resources needed for the activity of training CHWs.

Activity	Types of resources needed
Train CHWs in 40 villages in case management of diarrhoea and pneumonia	CHWs who are actively working in their communities Trainers who will run the courses, and upgrading of their skills Training materials for CHWs and trainers Financial resources for 3 courses during in the year Venue for classroom and clinical training (Availability of supplies of necessary medicines for treatment of diarrhoea and pneumonia for these CHWs during training and on an ongoing basis)

Figure 22

At this point in planning, it is sufficient to list types of resources that will be needed. Quantities of specific resources required and budget will be planned later.



EXERCISE F – List tasks in activities and types of resources needed

In this exercise, you will practise listing the tasks required to implement an activity. You will work in teams of three and will compete against the other teams to write the best list of tasks within the time limit. Then the teams will compete again to list the types of resources needed to implement the activities.

- Locate the pages for this exercise in your Workbook (pages 21 and 22): WORKSHEET: List Tasks in Key Activities that You Have Planned, and WORKSHEET: List Types of Resources Needed for Activities. The facilitator will divide the group into teams.
- 2. Discuss and agree how the exercise will work–like a game show. The facilitator will be the timekeeper and will tell the teams when to start and when to stop. The teams may choose to develop their lists of tasks by writing on a flipchart, or writing on the worksheet, or by typing on a computer. The teams will have to think quickly and write quickly to develop a thorough list of the tasks required to implement the given activity. After 5 minutes, the facilitator will call time, and all teams must stop working. Then the lists will be reviewed by the group and **the group will vote on the best list of tasks**. This process will be done twice, for two different activities.
- 3. Agree on the activities to be planned. Look back at the pages for Exercise E in your **Workbook** (pages 17–19) on which you listed activities to implement your intervention packages. The facilitator will ask the group for some suggested activities to use in this exercise and will then choose two that will be used.
- 4. Sit together with your team, and prepare for the exercise (for example, get the flipchart and pen ready, and appoint the person who will write the list). At the top of the page, write down the first activity to plan.
- 5. START when the facilitator says to, and brainstorm with your team to **list the tasks that would be involved in performing the activity well**. A good list of tasks should be complete and state the tasks in sufficient detail that one could delegate each task and monitor whether it is done. Tasks should also be listed in a reasonable sequence. STOP when the facilitator calls time.
- 6. Each team will present their task list. Then the whole group will vote on the best list.
- 7. Repeat the process for the second activity.

- 8. Now repeat the process once more to list types of resources needed for the **two** activities. Use page 22 of the **Workbook**, *WORKSHEET: List Types of Resources Needed for Activities*, or a flipchart page formatted similarly. You may want to review Figure 22 on page 54 of the module. The facilitator will tell your team when to START and when to STOP.
- 9. Each team will present their lists of resources. The group will vote on the best list.
- 10. Based on the three parts of this exercise, one team is declared the winner!



Step 4 Plan Monitoring of Implementation of Activities

Figure 23



Step 4. Plan monitoring of implementation of activities

Monitoring means checking regularly to see that activities are carried out as planned and to identify and solve problems. Regularly collecting and analysing data on implementation allows programme managers to know whether or not activities are taking place and whether they are implemented effectively.

4.1 Plan to monitor whether activities are completed as planned

Every programme should track whether planned activities are actually carried out. Plan for information to be recorded and provided to the manager to track activities such as training courses conducted, supervisory visits made, medicines and supplies distributed, counselling materials distributed, counselling sessions done, and home visits made. Then the manager can see to what extent the activities were completed.

4.2 Choose priority indicators for monitoring implementation of activities

An *indicator* is a measurement that is repeated over time to track a programme's progress. A plan for monitoring should specify the indicators that will be tracked regularly (e.g. monthly, bi-monthly) through monitoring data.

Activity-related indicators will help measure the results of conducting activities. Results of activities may relate to:

- availability (e.g. the proportion of facilities with essential medicines and vaccines available)
- increases in access (e.g. proportion of communities with a CHW trained in case management of pneumonia)
- demand creation (e.g. communities with at least one mass media communication activity such as radio, TV, groups, etc. for child health in previous 3 months)
- quality of health services (e.g. proportion of health workers observed during a supervisory visit who correctly assessed a sick child)
- knowledge of families (e.g. proportion of mothers of sick children leaving a health facility who can list 2 danger signs).

Management at higher levels will agree on some monitoring indicators that you will measure regularly; others may be added.

Programme records and reports of supervisory visits can usually provide information on activities completed and on indicators related to availability, access, demand and quality (such as supplies available, health workers trained, supervision conducted, observations made during supervisory visits, counselling visits made). In addition, financial indicators can assess to what extent the budget planned for certain activities has been dispersed and spent on those activities.

Some indicators, such as knowledge of caregivers, or proportion of diarrhoea cases in the community that receive ORT, can only be measured periodically when there are resources to do a household survey.

Programmes need to select activity-related indicators that are important and feasible to monitor with the available methods and resources.

To select indicators for monitoring

- 1. Review the activities planned for implementing the interventions. Select priority activities.
- 2. Write down several possible activity-related indicators that would measure:
 - **completion** of the first activity or
 - its **results**, such as improvements of availability, access, demand, quality of services, or knowledge of families and communities.
- 3. Then, to choose the best indicator from among those you have listed:
 - a) Consider **how** the data could be collected to monitor each indicator. You must choose an indicator that is feasible to monitor on an ongoing basis.
 - b) Consider which indicator **will tell you more** about the effectiveness or result of the activity.

For example, for the key activity of training CHWs to treat pneumonia, *the proportion of CHWs trained* is a feasible indicator to monitor. However, *the proportion of villages with a trained CHW* is also feasible to measure and will tell you more about the progress made by the programme in making service available to the population.

As another example, instead of tracking *the number of health workers trained*, monitor the *proportion of health facilities that have a trained health worker managing sick children*, because the latter is directly measuring availability of a service to the population.

Figure 24

EXAMPLE: Different types of indicators to track progress of implementation of an intervention

Intervention: Exclusive breastfeeding for infants up to 6 months of age

In the home and community: CHWs visit new mothers and counsel on exclusive breastfeeding

Activities planned	Activity-related indicators (to be monitored regularly)			
Recruit and train CHWs in 40 villages	Proportion of 40 villages visited to recruit a CHW			
(availability)	Proportion of villages in the district with at least one trained CHW			
Train CHWs in counselling skills	Proportion of planned training courses for CHWs conducted			
(quality)	Proportion of CHWs trained in breastfeeding counselling skills			
	Proportion of trained CHWs who have adequate breastfeeding counselling skills ("adequate" to be defined)			
Supply trained CHWs with tested counselling cards (quality)	Counselling card for CHWs tested and finalized			
	Number of counselling cards printed (300 planned)			
	Proportion of trained CHWs who reported having used the counselling cards during the last observed home visit			
Regularly supervise (visit) trained CHWs and observe their counselling (quality)	Proportion of CHWs that have received a supervisory visit that included observation of a home visit in the previous 6 months			
Trained CHWs make home visits in the first week after birth to counsel on exclusive breastfeeding (knowledge)	Number of home visits made in the month by CHW to mothers in the first week after birth as compared to number of births expected per month in the community			
	During observations of counselling sessions, proportion of mothers of infants counselled by a CHW who can state 2 benefits of exclusive breastfeeding at the end of the counselling			

Notice that all the activity-related indicators listed above are possible indicators, but some are better indicators than others, because some more directly measure the **results** of activities in terms of availability, access, demand, quality of services or knowledge of families and communities. However, if an indicator can only be measured in a household or health facility survey, it is not suitable for monitoring. For example, as compared to the last indicator listed in the figure above, *proportion of mothers of infants who know 2 or more benefits of exclusive breastfeeding* would tell you more about the result of counselling in terms of knowledge of all caregivers in the community. However, it would require a household survey to measure and therefore would not be feasible to monitor.



EXERCISE G – Choose priority indicators for monitoring implementation of activities

In Part 1 of this exercise, your group will choose the best indicators to track implementation of the intervention of standard case management of children with pneumonia.

In Part 2, you will select priority indicators to monitor for the intervention that you planned in Exercise E.

Part 1: Work with your group to complete the table on the next page.

- With your group, list 2–3 possible indicators to monitor each activity. Remember that activity-related indicators may track whether activities are **completed** or may measure **results** of those activities in terms of availability, access, quality, demand, or knowledge of family members.
- Then consider the feasibility of measuring each. Eliminate any that are not feasible to monitor regularly.
- Consider which would tell you more about the effectiveness or result of the activity.
- Put a star by the priority indicators that you choose.

Intervention: Antibiotics for pneumonia

In the home and community: CHWs provide community case management of pneumonia

A. Activities planned	B. Activity-related indicators (to be monitored regularly)
Recruit CHWs in 45 villages (one per village)	
Train CHWs in 45 villages in community case management of pneumonia	
Supply trained CHWs with timers, counselling cards, and antibiotics	
Supervise trained CHWs quarterly	
Trained CHWs provide group health education on care- seeking for pneumonia	

(exercise continues on next page)

Part 2: Select indicators for an intervention/package

In this part of the exercise, you will continue planning for the intervention/package in your programme by selecting some indicators to monitor. Work by yourself or with a colleague from your area.

Turn to your **Workbook** and find the *WORKSHEET: Choose Indicators for Monitoring Activities* (pages 25–26). Follow the instructions on page 24 to complete the worksheet.

When you have completed this exercise, discuss your work with a facilitator.

4.3 Decide how to monitor, when, and who will monitor

Information on activity-related indicators is usually available in reports of supervisory visits, training reports, and spending reports. They can therefore usually be collected relatively quickly and cheaply.

Managers can collect information in several different ways. Districts (and other administrative areas) need to begin with what is feasible with local systems and resources. The choice of methods depends on the type of information needed, resources available, quality of routine health information systems, and the number of staff available to collect and analyse data. The range and quality of monitoring methods may change over time as implementation expands, and as district and facility personnel gain experience.

Possible monitoring methods

Record review

Useful records may include facility-based morbidity and mortality data, data on referrals, training attendance reports, training post-tests, reports from follow-up after training, medicines stock data, project status reports, and reports of supervisory visits.

Training records and medicine stock records may be useful for determining numbers of health staff trained and medicine availability. Administrative reports provide information on resource availability (e.g. numbers of different cadres of health staff, CHWs, and skilled birth attendants; funds; equipment) and spending. Project reports may provide information on activities completed.

In facilities that record the IMCI case definitions, records may be useful for reviewing the number of cases by classification, and the treatment given to these cases, including the number of severely ill cases seen and how they were managed. Facility-based data on antenatal care and postnatal care may also be available. Hospital-based records may allow review of the management of severely ill children and the number and type of referrals over time.

Reports of supervisory visits

By reviewing reports of supervisory visits, you can count the number of supervisory visits made and whether observation was included. They may describe activities that are going well, problems encountered, and whether those problems have been resolved. Reports may provide information on numbers of health workers and their training status, and the availability of essential medicines, vaccines, supplies, equipment, and health education materials. If supervisors observe the performance of the health worker (or CHW) during visits, then there may be data on case management practices, counselling, supply management, meetings with community groups, or health education sessions. The quality of data collection may vary considerably between supervisors. For this reason, instructions to supervisors, monitoring checklists, and report forms should be carefully designed, and supervisors should be trained in how to use them.

Reports from routine reporting systems

A routine reporting system is used to collect data regularly from reporting sites in a given area. Ideally, the routine reporting system will provide accurate, complete data from all health

facilities or from community-based workers on the number of cases seen and the treatment received, and will allow estimates of immunization coverage. However, this ideal is rarely achieved. Many routine data are incomplete and unreliable.

When to monitor?

Data should be collected and analysed frequently enough to allow managers to track the status of implementation and take action to correct problems. For example, managers should review training reports soon after implementation to see whether courses were conducted as planned and to record the number of people trained. If the course was not conducted or there were significant problems, the manager could investigate and try to solve the problem before it impacts future courses. Frequency of monitoring depends on the methods chosen, the availability of staff to collect and analyse data and the timing of activities. Indicators may be calculated on a quarterly basis using data collected during the quarter.

Who will collect the monitoring data?

Monitoring of implementation is usually coordinated by the district or regional programme manager. Some data must be collected by staff who make supervisory visits or other field visits (e.g. training supervisors). Other data can be collected by staff who review routine reports or records, or prepare reports of activities, or conduct interviews with staff. All data that is collected should be given to the district for summary and analysis. Some of the data may be forwarded from the district to the region.

Linking monitoring for different child health interventions

Wherever possible, collection of information on child health areas should be incorporated into existing procedures for reporting and supervision such as the Health Management Information System (HMIS) reporting, routine administrative reports, and regular supervision. Monitoring for antenatal and newborn care activities should be linked, where possible, with monitoring of other child health activities. When information on several programme areas can be collected at the same time, systems are more efficient and the demands on staff are reduced.

4.4 Plan how to summarize, analyse and interpret data, and use and disseminate results from monitoring

Often data are collected but not used. Sometimes data are summarized and filed; sometimes they are summarized and reported to higher levels. However, the most important step at the district level is for the district programme manager to review the data, analyse and interpret it, and **use** the information to improve the programme.

To ensure that monitoring data will be used, the manager should make a clear plan for how, when and by whom the monitoring data will be collected, summarized, analysed, and given to him or her for review and interpretation on a regular schedule. This plan should also describe how the results will be used to provide feedback and how they will be disseminated. As a principle, a data management system should be simple, feasible with local resources and skills, and not require too much time to complete.

The mechanism for recording monitoring data should be easy to use and should yield reliable and comparable data from different supervisors or staff. Monitoring checklists remind

supervisors of the information to collect. Monthly report forms (such as a training report form) show what data is required. Options for collecting data include:

- A simple paper log-book in which entries are made by hand
- A form which is completed by hand or on a computer
- A computerized database, in which data are entered into a spreadsheet programme

EXAMPLE: Mira District Plan for Management of Child Health Monitoring Data

Collection

- Supervisors: Complete reports of each supervisory visit conducted and submit them to the district twice a month.
- Training staff: Complete a report by the end of each month on courses conducted, health workers trained, health workers awaiting training, visits conducted for follow-up after training, CHWs trained.
- Each health facility: Complete the monthly Community Activities Report and submit it to the district office by the 15th of the following month.
- District supply officer: Prepare a monthly report for the district child health manager on medicine and supply orders received by the district, orders sent to health facilities, and any stock-outs or other incidents.

Summary

- District training officer: Summarize data collected by training staff and submit it to the district manager by the end of the month.
- At the end of each month, the data assistant (in the district office) will:
 - summarize the supervisory reports, based on a set of prototype tables prepared by the manager
 - summarize the Community Activities Reports from all health facilities
 - prepare monthly data summaries on supervision, training, and community activities, including graphs and other presentations to help to interpret the data
 - provide these summaries to the district manager by the first week of the following month
- Quarterly, data assistant: Calculate the key monitoring indicators, using data from the reports. (A data management form for a quarterly summary and analysis of monitoring indicators is presented in Figure 25.)

Analysis

- District child health manager:
 - review summaries each month to understand the progress and constraints of the programme
 - track the indicators from quarter to quarter, to assess the extent of progress in implementing activities and the results of those activities over time
 - *identify any successes and problems that require attention.*

Use

- *District child health manager:*
 - *discuss problems identified with staff as needed to determine causes and plan solutions.*
 - assign responsibilities for carrying out solutions.

Feedback and dissemination

- District child health manager:
 - prepare a report for the District Health Officer and child health managers at higher levels.
 - hold a monthly meeting to disseminate findings to staff, including CHWs, to recognize their accomplishments and discuss with them any problems that need to be addressed
- Supervisors: During supervisory visits to health facilities, share feedback from monitoring.

Computers are changing the possibilities for managing data. Spreadsheet programmes can simplify the tasks of summarizing data and calculating indicators and can save time in data management. They can quickly prepare charts and graphs that help to interpret data. However, interesting spreadsheets, charts and graphs are only useful when they are interpreted and used to improve the programme.

Figure 25: EXAMPLE: Data Summary Form for Monitoring

YEAR:_____

DISTRICT:_____

Training				
Indicator	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
Proportion of training budget spent				
Proportion of planned IMCI courses completed				
Proportion of health staff needing IMCI training who are trained				
Proportion of health facilities that have at least 60% of health workers who care for children trained in IMCI				
Proportion of (recently) IMCI-trained health workers who received at least one follow-up visit				
Proportion of CHWs trained in community case management				

(continued on next page)

Data Summary Form for Monitoring (page 2)

Medicines and supplies				
Indicator	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
Proportion of medicine deliveries received by district on time during the last 3 months				
Proportion of facilities with all essential medicines available (no stock-outs) during the quarter				
Proportion of facilities with all essential vaccines available				
Proportion of facilities with appropriate record-keeping on medicines and supplies				

Supervision				
Indicator	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
Proportion of supervisors trained to use checklist with observation				
Proportion of health facilities that received at least one supervisory visit in the last 3 months				
Proportion of planned supervisory visits to health facilities completed				
Proportion of CHWs that received a supervisory visit that included observation of a home visit				

Household and Community				
Indicator	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
Proportion of communities with CHW recruited				
Proportion of communities with CHW trained in community case management				
Proportion of communities with CHW trained in counselling skills				
Proportion of villages with village health committee in place				



EXERCISE H – Plan monitoring of implementation of activities

In this exercise, you will continue to plan implementation of the intervention package by planning **how** to monitor the indicators you specified in Exercise G.

- 1. Follow the instructions in the **Workbook** (page 28) to complete the *WORKSHEET: Plan Monitoring of Implementation of Activities* (page 29).
- 2. Then write answers to the questions on the WORKSHEET: Plan How to Summarise, Analyse, and Interpret Data and Use and Disseminate Results from Monitoring (page 30).

When you have completed this exercise, discuss your work with a facilitator.

Step 5 Plan for the Next Review of Implementation Status

Figure 26



Step 5. Plan for the next review of implementation status

This section describes how to plan for the review of implementation status that should occur at the end of each year as a part of planning. (If resources are limited, this review may take place only every two years.) Figure 30 below (which appeared as Figure 1 in *Module 1: Introduction*) shows that you should review implementation status as an early step in developing the next implementation plan. Thus, plans to collect and synthesize data for the next review must be included in **this** implementation plan, so that data will be available for the **next** planning cycle.

Figure 30



Programme Planning and Management Cycle

This review of implementation status is very much the same as the process described in this module in "2.0 Review implementation status" and practised in Exercises B and C. Some differences from year to year may include the amount of recent data available and the number of participants in the planning team.

So that your programme will be prepared to do a meaningful review a year from now, the implementation plan should include activities to collect and summarize the data needed to assess progress. How much and what sort of data collection can be done depend greatly on the resources available, including financial and human resources, and plans made for data collection by higher levels (e.g. a household survey organized by the region).

5.1 Decide when the next review of implementation status will be conducted

The review of implementation status (step 2.0) should be conducted in one or two years' time as a part of developing the implementation plan for the next period. Schedule the next review of implementation status keeping in mind that routinely collected data on implementation must be compiled and summarized before the planning group meets. Any special data collection activities such as surveys or special studies must be completed and summarized. When selecting dates for the review, also consider the opportunity provided by any review meetings in maternal and child health or other health sector review meetings to maximize the participation of key stakeholders and the use of resources.

5.2 Decide what to review and choose the specific indicators to assess

Decide which areas of programme activity will be reviewed, for example, progress in training health facility staff in IMCI, in increasing availability of community case management of pneumonia and ensuring its quality, in community activities related to improved infant feeding, in making improvements in EMOC at hospitals, and in making supplies of essential medicines consistently available at health facilities.

Choose indicators to assess achievement of targets that were set. For example, look at Figure 15 on page 39, which shows the targets for the child health programme in the Coastal Region. At higher administrative levels (national, regional), the programme may plan to assess population-based coverage indicators. It is less likely that other levels, such as the district, will be able to assess coverage indicators; however, the district will assess all the activity-related indicators.

The indicators to evaluate achievement of the coverage targets in the Coastal Region will be:

- 1. % of children with pneumonia in the previous 2 weeks who received an appropriate antibiotic
- 2. % of children age 6–9 months who receive breast milk and appropriate complementary feeding

The indicators to evaluate achievement of the activity-related targets will be:

- 3. % of health facilities that have at least 60% of health workers caring for sick children trained in IMCI
- 4. % of health facilities that have received at least one supervisory visit that included observation of practices in the previous 6 months
- 5. % of villages that have at least one CHW trained in community case management of pneumonia

- 6. % of trained CHWs that have antibiotics available for treatment of pneumonia
- 7. % of villages that have at least one CHW trained in infant feeding counselling
- 8. % of trained CHWs who have child health counselling materials available and in use
- 9. % of villages that have breastfeeding/nutrition support groups established
- 10. % of caregivers of infants who received at least one child nutrition counselling session at home or in a health facility in the previous month

List any additional important activity-related indicators to assess. These should be indicators that measure the results of activities in terms of availability, access, demand, quality of services or knowledge of families and communities.

The Coastal District added the following activity-related indicators to the list of indicators:

- 11. % of children prescribed ORS, and/or an oral antibiotic and/or an oral antimalarial whose caregivers can describe correctly how to give the treatment
- 12. Index of availability of four recommended vaccines available at each facility on the day of visit
- 13. % of health facilities that have the equipment and supplies to provide full immunization services on the day of the visit
- 14. % of hospitals that have the ability to perform a caesarean section at any time (24 hours per day 7 days per week)

5.3 Decide on methods to collect data and how data will be summarized

5.3.1 Consider how the data needed can be collected

To measure the status of implementation, plan to use:

- monitoring data collected during the year
- reports from supervisory visits, and
- activity reports such as on training, medicine supply and management, and community activities.

For example, data to measure indicators 11, 12, and 13 above can be collected during supervisory visits; specific questions would need to be added to the supervisory visit form. If survey data will be available from a health facility survey and/or household survey conducted by another organization, a national survey, or from other studies, plan to use that also.

It is helpful to specify exactly the data that will be needed (numerator and denominator) to calculate the indicators chosen (in step 5.2 above), so that appropriate methods will be planned to collect the data. Figure 28 demonstrates this.

- If the denominator is all members of the target population in the community (e.g. children under 5, infants, cases of diarrhoea in the previous 2 weeks, pregnant women, or caregivers), a household survey is required.
- If the denominator is all cases (e.g. of diarrhoea, pneumonia, or wasting) seen at a health facility, a facility survey is needed.
- If the denominator can be determined from records (e.g. number of health workers), a survey is not needed.
Figure 28

EXAMPLE: Data needed and methods to collect data

1. What to assess (Indicator or question)	2. Data needed: Numerator/denominator	3. Method to collect data
Proportion of infants under 6 months of age who are exclusively breastfed (coverage)	Infants under 6 months whose mothers report were exclusively breastfed in the last 24 hours/ Infants under 6 months in the geographic area	Household survey
Proportion of caregivers of children aged 0-59 months who know at least 2 signs for seeking care immediately when their child is sick (knowledge)	Caregivers of children aged 0–59 months who correctly describe 2 signs for seeking care immediately when their child is sick/ Caregivers of children aged 0–59 months in the geographic area	Household survey
Proportion of children seen at first-level health facilities who needed an antibiotic or antimalarial who were prescribed the medicine correctly (quality)	Children correctly prescribed an antibiotic or antimalarial/ Children seen at first-level health facilities who needed an antibiotic or antimalarial	Health facility survey
Proportion of villages in the district with at least one CHW trained in community case management of pneumonia (availability, access)	Villages in the district with at least one CHW trained in community case management of pneumonia/ Villages in the district	Review of administrative records (list of CHWs); training records Administrative records
Proportion of CHWs that received at least one supervisory visit with observation of practice in the previous 6 months (quality)	CHWs who received at least one supervisory visit that included observation of practice in the previous 6 months/ CHWs in the district	Review of records of supervisory visits to CHWs during the last 6 months Administrative records
Why do some women choose not to exclusively breastfeed their infants?	Community beliefs and traditions about breastfeeding and breast milk, supplementing breast milk, how long to breastfeed, when to start complementary foods, etc. Women's explanations of why they did or did not exclusively breastfeed for 6 months	Focus groups of women in the community (all ages) Interviews of mothers of children age 6 months to 3 years

If it has been 2–3 years since a survey has been conducted in the area and there is need for more current data, you may decide to undertake a health facility survey during the year to assess the quality of case management in facilities. If sufficient resources will be available, you may plan to do a household survey every few years to provide better information on the coverage of interventions and other results of activities (such as knowledge of caregivers, feeding practices of infants and children, attendance of deliveries by a skilled birth attendant). The programme may decide to organize a small study, such as by using exit interviews of caregivers, to answer specific questions.

If a household survey will **not** be feasible, some indicators may have to be dropped from the list of indicators to be assessed in the next review. If a health facility survey will not be possible, quality of care indicators cannot be quantitatively assessed. If small studies will not be feasible, some questions will not be answered. In this situation, **the review will be limited**

to indicators that can be assessed using monitoring data, reports of supervision, and reports of activities conducted.

5.3.2 Decide whether to undertake special data collection activities next year

Below are descriptions of three special methods that can provide data in addition to that provided by routine monitoring, supervision, and activity reports. However, when deciding how and when to collect additional data, the desire to conduct surveys to collect current data must be balanced against the human and financial resources that would be required. When deciding whether to undertake special data collection consider:

- What data will be already available, such as from a survey that was recently completed or is scheduled to be completed by the MOH, a partner, or another organization?
- Are surveys needed to measure certain indicators? What type of surveys? In what geographic area(s)?
- What data collection will feasible with available time, personnel, and other resources?

1) Health facility survey

Health facility surveys measure the quality of care and quality of counselling received by sick children and their caregivers attending first-level health facilities. Management of sick children by health workers is observed and compared against clinical standards for quality. The survey can also measure the availability of supports that are required for quality practice, such as supervision, essential medicines, vaccines and supplies. These surveys use a standard protocol, including standard checklists.

The WHO Health Facility survey⁴ uses IMCI clinical guidelines as standards of practice. In this survey, health workers are observed and their practice compared to the IMCI standard to determine whether sick children are managed correctly. Interviews with caregivers and health workers are often included also. Data are summarized and key facility-level indicators are calculated.

Other facility surveys are needed (or adaptations to the IMCI health facility survey tool may be needed) in order to assess quality of care for other technical areas such as antenatal care, HIV care, management of obstetric complications, or management of sick newborns.

⁴ Health Facility Survey: Tool to evaluate the quality of care delivered to sick children attending outpatient facilities (using IMCI clinical guidelines as best practices). Geneva, WHO, 2003. ISBN: 92 4 154586 O.

2) Household survey

Household surveys provide the best quality field data on the population-based coverage of an intervention. Small-sample surveys such as 30-cluster household surveys or the Maternal, Newborn, Child and Adolescent Health (MNCAH) household survey⁵ provide data on intervention coverage and other measures of caregiver knowledge and practices. The benefits of small-sample surveys are that they are cheaper and easier to conduct, and they provide data about districts or groups of districts that can be used for local planning.⁶

Small-sample household surveys can also measure activity-related indicators in the population, such as the availability of immunization and case management services, access to insecticide-treated bednets, or knowledge of families about infant and young child feeding practices.

3) Qualitative research studies

Qualitative methods include focus group discussions, key informant interviews, exit interviews, and participatory approaches. These methods can get information on local beliefs, caregivers' perceptions, reasons why people do or do not practise appropriate home care or care-seeking, and satisfaction with services for child health. They can provide information on why certain programme activities work and why others do not. They can allow local caregivers and community members to express their views on what is needed.

Special studies may be useful in some circumstances to answer particular questions, for example, to assess compliance with prescribed antibiotic treatment, practices of informal providers (medicine sellers, traditional healers), and barriers to referral. Verbal autopsies are sometimes useful for determining the cause of death of young children and the process that occurred from the onset of the illness until the child's death.

⁵*Maternal, Newborn, and Child Health Household Survey, final draft 2009.* Geneva, World Health Organization, 2009.

⁶ The sample sizes of small-sample surveys are not adequate to make mortality estimates. Large sample-size community-based surveys are required to calculate mortality rates for children under age 5, infants, and neonates, since most mortality in developing countries occurs away from facilities. Commonly conducted large-scale surveys include the DHS survey (<u>http://www.measuredhs.com</u>) and UNICEF MICS3 survey (<u>http://www.childinfo.org/mics/mics3</u>) which require extensive resources and are usually undertaken by the national level.

Key principles when planning additional data collection by survey

- 1. Plan to use **EXISTING** data first. Research and survey data are often available; check with other programme departments, universities, and non-governmental organizations who may be planning surveys or studies.
- Consider LINKING with other organizations or groups that collect child health data, in order to reduce costs and save time. For example: If DHS or UNICEF MICS3 surveys are planned, it is usually possible to incorporate specific questions into these surveys during development of questionnaires and other tools.
- 3. Balance the cost and feasibility of conducting a survey with the **NEED** for the data and the **QUALITY** of data collected. Conduct a survey that will provide data on indicators that are likely to have changed as a result of programme activities. When annual surveys are not feasible, plan smaller-scale surveys or conduct them less frequently, such as every three years.

5.3.3 Plan to summarize data for the next review

All the data that will be collected during the year **must** be compiled, summarized and analysed prior to the review. Reports from supervisory visits throughout the year must be summarized and the key findings stated so that reviewers can understand and use the findings within a reasonable period of time. The end-of-year status of each of the monitoring indicators should be calculated and listed to aid review. Other monitoring data and activity reports should be summarized, such as the numbers of health staff trained and still needing to be trained. If a survey was conducted, the survey report may provide the results or the relevant results may need to be summarized. The team should **not** have to shuffle through pages and pages of data to find the information they need. This is inefficient and frustrating, and will cause the planning process to take longer than it should.

Plan and schedule the work of compiling, summarizing and analysing the data prior to the review. Designate who will prepare the summaries, provide prototype tables for their use, and list the specific indicators that should be calculated for the end of the year. Specify when the data summaries will be finalized (set a deadline near the end of the following year) so that they will be available for the review.

Plan also to gather together other documents that will be needed for the review such as the strategic plan, most recent implementation plan, and any proposals and schedules that will show planned activities. Talking with staff at different levels of the programme and reviewing activity reports can provide information on activities that were or were not implemented and why.

Monitoring and other data are collected, summarized and then used in a review of implementation status



5.4 Plan who will conduct the next review of implementation status (step 2.0) and how it will be conducted

Possible ways to conduct the review of implementation status range from a review by a team (which may be formal or less formal) to a desk audit by an individual. In any review of implementation status, the reviewer(s)

- examine data from a number of sources
- assess whether targets were achieved
- assess the extent to which activities were implemented and their results
- identify programme strengths and weaknesses, and
- make recommendations for the future.

At the national level, the review may follow a rigorous protocol for a short programme review⁷ or a situation analysis. At sub-national levels, the review should follow the same principles but could be less extensive and involve fewer reviewers, depending on resources available, the extent of programme implementation and the amount and types of data available to be reviewed. At the district level, the review will be limited by the data available (usually no data on coverage is available). It may be conducted by the child health manager, or some member(s) of the planning team.

⁷ Using Data for Reviewing Child Health Programme (Guidelines for conducting short programme reviews.) Geneva, World Health Organization, 2009.. See Annex G for a description of a short programme review.

Plan:

- **How** the review will be carried out (e.g. a meeting of a few specific people from the planning team or from different child health-related programmes coordinated by the IMCI focal person or MCH director; or alternatively some members of the district health management team carry out the review to present to the planning team).
- If a group will do the review, plan **who** will participate in the group, where the group will meet, and for how many days.
- Who will write the report of the review's findings and recommendations.

5.5 Plan how to use the results of the review of implementation status

The results of the review of implementation status will inform the development of the implementation plan. For example, the recommendations of the review will guide the planning team when they do step 3.0 Decide on programme activities. The plan will include activities to address problems identified by the review.

Plan also to share the results of the review with higher levels, to inform them of the status of the programme's implementation in your area. The results can also provide the rationale when you request support and other resources needed to solve problems or expand activities.

Plan to give feedback to managers, facility staff, CHWs, and communities. Plan to discuss with them the status of implementation, achievements, problems, and plans for using results of the review.

Also plan to disseminate results through annual health sector review meetings, annual programme management meetings, and re-planning meetings. Plan to share any results on quality of care at meetings of nursing, medical, or other professional associations, and to publish results in newsletters or journals.





EXERCISE I – Plan for the next review of implementation status

In Parts 1 and 2 of this exercise you will practise specifying data needed to assess several indicators in Yama District and selecting methods to collect the data needed. In Part 3 you will plan for the next review of implementation status in your programme.

Part 1: The child health manager in the Yama District is planning to assess four indicators at the end of the year. Specify the numerator and denominator data that must be collected to assess each indicator, and then specify the method to collect that data. The first row is completed for you.

	What to assess (Indicator or question)	Data needed: Numerator/denominator	Method to collect data
1.	Proportion of children under age 5 years with diarrhoea who received ORT and zinc	Number of children under age 5 years in the geographic area with diarrhoea in the previous 2 weeks who received ORT and zinc	Household survey
	(coverage)	Number of children under age 5 years in the geographic area with diarrhoea in the previous 2 weeks	
2.	Proportion of children under age 5 years with diarrhoea seen at a health facility who were correctly treated (quality)		
3.	Proportion of villages that have at least one CHW trained in community case management of diarrhoea (availability)		
4.	Proportion of caregivers who can state 2 danger signs to bring a sick child for care (knowledge)		

Part 2: The child health manager now realizes, however, that it will not be feasible to do a household or a health facility survey next year in this district. But he still wants to assess at the end of the year whether the programme has made any progress in improving the treatment of children with diarrhoea.

The Yama District's plans include activities to recruit and train CHWs to treat diarrhoea and pneumonia, and to supply them with the necessary medicines. Activities are also planned to teach community members about these childhood illnesses, the signs that indicate the child should be taken for care, and what treatments are appropriate. Group health education sessions at health facilities should include instructions about how to feed a child during illness and how to use ORT. Another IMCI training course for health staff at facilities is planned. (IMCI training has been conducted during each of the past two years, but not all health staff are trained yet.)

The manager has planned a special training for supervisors to improve their supervisory skills and to introduce the new supervisory visit form to complete at each visit to a health facility. His plan is that each health facility will be visited every two months, and that visits will include observation of case management and a check of supplies of medicines.

What indicators can you suggest to the manager that will be feasible to measure and will show whether the programme is making progress in improving treatment of diarrhoea? List four indicators in the table below and specify the method to collect data to assess them.

What to assess (Indicator or question)	Data needed: Numerator/denominator	Method to collect data
1.		
2.		
3.		
4.		

When you have completed this part of the exercise, tell your facilitator that you are ready for the group discussion.

Part 3: Plan for the next review of implementation status in your programme. Work on this part of the exercise by yourself or with a colleague from your programme.

Locate the *WORKSHEET: Plan for the Next Review of Implementation Status* (Exercise I) in your **Workbook** (pages 32–33). Follow the instructions below to complete the worksheet.

- 1. In the left column, list a few indicators (related to one intervention package) to assess the:
 - coverage of interventions (if feasible)
 - achievement of the activity-related targets that were set
 - extent of implementation of important activities
 - the results of the implementation of activities (availability, access, demand, quality, or knowledge of families related to child health)
 - additional questions that might be answered through research (if feasible)
- 2. In the centre column, for each of the indicators, specify the numerator and denominator.
- 3. Then specify the method of data collection.
- 4–8. Answer the questions on the second page of the worksheet (page 33).

When you have completed Part 3, discuss your work with a facilitator.

Step 6 Write a Workplan and Budget

Figure 34



Step 6. Write a workplan and budget

The written workplan specifies how the selected interventions and packages will be implemented on the ground, including activities and tasks to be done, and plans for monitoring and the next review of implementation. A workplan is usually written for a period of 1 to 2 years. It is used by staff to track whether activities and tasks are implemented in timely fashion. The budget is needed to forecast resources needed, to advocate for funds, and to track spending over time through financial monitoring.

6.1 Decide how to scale up implementation

"Scaling-up" describes the process of implementing programme activities progressively throughout an administrative unit, such as a region, province, district or sub-district. New activities can begin simultaneously throughout the area, or can be implemented progressively, or "scaled up," by beginning in one part of the area and expanding later to other parts. Careful phasing of implementation in this way can often enable implementation to be done more effectively because lessons learned and solutions developed in early implementation areas can be applied in subsequent areas.

Whether to scale up implementation progressively, and if so, how, will depend on:

- *Public health needs*: Areas with low intervention coverage should be given priority, since in these areas children are most at risk. These areas are often areas with the highest burden of disease, or with the most significant inequities in access, demand or quality of care.
- *Current programme status.* In an area where the proposed intervention will be added to existing programme activities, implementation can usually begin more quickly.
- *Readiness*. Some areas (regions, districts, sub-districts) may have a greater capacity for training, better system supports such as medicine supply or supervision, or greater support from local partners such as NGOs. Implementation can begin in these areas earlier than in areas with less capacity.
- *Demand*. Managers in some areas may be more interested and motivated than in other areas. Having the support of local staff is essential to effective implementation.
- *Resources available.* Programmes with limited resources may not be able to implement in all districts or areas at the same time. Alternatively, programmes with resources from donors or NGOs or the national treasury may be able to implement more widely using these resources.
- *Politics.* Political interests can sometimes determine the districts or areas where programmes are implemented first, or whether they will be implemented in all areas at the same time.



EXERCISE J – Decide how to scale up implementation

In this exercise you will plan how to scale up implementation in your area (the geographic area that is your responsibility). Work with a colleague from your area.

Part 1: Planning how to scale up implementation

Consider the intervention package that you have been planning in the previous exercises. Answer the questions below about the current situation in your own programme.

The intervention/package/activities to scale up:

- 1. Areas with greater public health needs: Do these exist? Where are they?
- 2. Current programme status: Is the intervention package being implemented now? Are there areas where it is working better than others?
- 3. Readiness: Do certain areas have more capacity for training, system supports (medicines, supervision), or support from partners than others?
- 4. Demand: Is there greater interest and motivation from some areas than others?
- 5. Resources available: Are enough resources available to allow implementation throughout in all areas? Do some areas have extra resources available from NGOs or other sources?

6. Politics: Are there political interests that will determine priority areas for scaling-up implementation?

Part 2: Presentation of your plan

Decide whether you can implement or add to the intervention package throughout your area all at one time, or whether you will need to scale up. Then prepare to give a brief presentation to the group on how you will scale up your intervention package in your programme area and why you have chosen this approach. (If you have worked with a colleague on this exercise, choose which of you will give the presentation.)

When it is your turn, **make your presentation of 2–4 minutes to the group**. Begin by telling what intervention or activities you want to scale up. Then tell how you will scale up your intervention package in the geographic area and why you have chosen this approach.

When you have prepared your presentation, tell your facilitator that you are ready for the group session.

6.2 Schedule activities and set a timetable

Timetables are usually set for periods of one year. Activities are usually listed by month. There should be enough detail to remind managers of all major activities.

Schedule implementation according to the resources and other elements required. Some strategies are easier to implement than others in the short term; others require time before implementation can occur. Factors to consider when planning how to schedule activities include:

- 1) Whether training materials or guidelines are needed. If guidelines or materials need to be developed, then implementation cannot begin until development is completed. If they are already available, training can begin sooner.
- 2) Whether health education messages and materials are needed. Development of new messages and materials requires qualitative research, material development and field testing. Activities that use materials cannot begin until this process has been completed.
- 3) Whether elements of the health system need to be strengthened. Some gaps in the health system will require time to solve, such as improving the logistics of medicine and vaccine supply; or improving the availability of vehicles for supervision.
- 4) Whether health policies need to be changed to support certain interventions or activities. Key policies include: the roles and responsibilities of different health staff–such as community health workers and skilled birth attendants; vaccines and medicines recommended for routine use; and technical guidelines that have been adapted for local use.
- 5) Whether mechanisms for working in communities need to be established. These might include working with local committees, community health workers, or other partners. If these mechanisms do not exist, then time will be needed to establish them. When it is possible to use existing community mechanisms, there is less delay in implementation.
- 6) Whether there are barriers to supervision. Routine supervision will not take place until barriers, such as limited availability of staff, vehicles and fuel, have been addressed.

Figure 32 shows a timetable for some activities related to IMCI.

Type of Activity	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec
IMCI Training	Plan and prepare IMCI training for nurses	→	Conduct training for nurses	→	→ Begin IMCI post- training follow-up	→	→	→	→ IMCI post- training follow-up visits	<i>→</i>	<i>→</i>	→ IMCI post- training follow-up visits
Communi- cation	Review key messages in existing family package	→	Produce and test counselling materials	>	→	>	→	→	Update of HWs on new messages and materials	HWs train community groups and CHWs in revised health education/ counselling materials	<i>→</i>	<i>→</i>
Medicines/ supplies	Review vaccine supply system Identify source of timers	→	Establish mechanism for improving vaccine supply Deliver timers	Monitor: Vaccine supply at facilities; availability of timers	÷	÷	÷	→	Monitor availability; address problems	÷	→	→

Figure 32 EXAMPLE: Year 1 Timetable for implementing activities

Figure 32 (continued)

EXAMPLE: Year 1 Timetable for implementing activities (continued)

Type of Activity	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec
Develop Community Support	Form working group with NGOs and others to coordinate activities	Establish mechanism for HWs to routinely visit community workers during outreach	Work with community groups to develop methods to support CHWs	→	→	→	Monitor coverage with community groups/ workers Address problems areas	→	→	→	→	Monitor coverage with community groups/ workers Address problems areas
Supervision	Develop plan to improve quality and frequency of supervisory visits	Develop and test integrated checklist which includes IMCI	Plan supervisory training	Conduct training of supervisors	÷	÷	Supervision continues monthly	→ Conduct training for new supervisors	→	Monitor supervision	→	÷
Advocate for Policy Support	Liaise with central managers to advocate for national guidelines on essential newborn care	Liaise with central managers on adding IMCI to pre- service training	→	÷	→	→	→	→	→	→	→	÷



EXERCISE K – Review a timetable for activities

In this exercise you will practise reading a timetable for activities. The group will discuss questions about timing of activities in your programme area.

Study the timetable on pages 88–89 and answer the questions below.

1. When does training of nurses in IMCI begin?

When does training of community workers using new messages and counselling materials begin?

Do you think the timing is reasonable? Explain your answer.

2. In your programme area, who usually works with communities to build local capacity? Do you think the timing of community activities in your programme is reasonable?

3. Which of these activity areas (advocacy, training, medicines/supplies, communication, developing community supports, supervision) has been most difficult to implement in your own programme? Why? Would you change the timing of activities?

When you have completed this exercise, tell your facilitator that you are ready for the discussion.

6.3 Estimate resource needs and develop a budget

Scaling-up delivery of child health interventions will require additional investments in medicines, supplies, equipment, and human resources, as well as strengthening of the health system. A budget is needed to forecast the resources required and to advocate for funds.⁸

6.3.1 Estimate human resource needs

It is essential to estimate the number and type of personnel needed and how those needs can be met most efficiently with available human resources. Figure 33 on page 93 is a worksheet for estimating the number of health workers required. (It does not include administrative and managerial personnel). Four key steps are summarized below:

Step 1: Determine how many health workers are required to meet health needs in the geographic area (the "baseline number") (Column A)

Determine the total number of staff and also the numbers of different types of workers needed to provide essential services. For example, in child health, health workers are needed to provide well and sick child care, immunizations, and postnatal care, and a supervisor is needed for these health workers. In many districts, each staff member is expected to perform multiple functions including adult health care. Ideally there should be enough health workers to allow division of labour. Division of labour will be more likely to lead to better quality of services (because more time is available), more satisfied clients, and more satisfied health workers.

An approach to estimating the baseline number of health workers required to see patients includes the steps below:

- Count the number of health facilities at each level.
- Review average daily/weekly case-loads of women and children
 - for each category of health facility (first-level, district, referral)
 - for the type of visit (immunization, sick child, well-child, postnatal etc.).
- Estimate the number of cases that can reasonably be seen each day by one health worker and the different types of health workers involved. These estimates can be made by:
 - 1) talking with and observing health workers in the clinic setting
 - 2) talking with experienced health facility managers
 - 3) conducting studies to investigate patterns of time usage.

Different types of services will require different amounts of health worker time. For example, the IMCI approach requires more time with mothers and children than giving immunizations.

⁸ For additional information on general costing and budgeting, see Creese A and Parker D. *Cost analysis in primary health care - a training manual for programme managers.* Geneva, WHO, 1994.

- Estimate total number of facility-based health workers needed at each level to see patients using:
 - 1) the total number of facilities at that level
 - 2) the average numbers of children and women attending daily/weekly and the reason for the visit
 - 3) the estimated average number of cases of each type that can be seen by one health worker each day. Allow for possible increases in attendance over time.
- Estimate the number of facility-based health workers needed for functions other than seeing patients (e.g. supervision, supply, laboratory, health promotion).
- Add together the number of facility-based health workers needed to see patients and the number needed for other related functions. Record this "baseline number" in column A of the worksheet.

Step 2: Determine how many health workers are already available. (Column B)

Up-to-date records of existing staff may or may not be routinely available. When staff turnover is high it is difficult to know exactly how many staff are working. It is important to get data from as many facilities as possible by means of:

- reports of supervision-where staff numbers are recorded
- visits to facilities to directly observe and record staff numbers
- contact via telephone, radio or mail to ask for staff numbers
- mailing or e-mailing questionnaires.

Step 3: Estimate the expected inflow and outflow of health workers (per year) (Columns C and D)

Inflow refers to the number of new health workers who are entering the workforce. They can come from the following sources:

- graduated health workers from training schools
- domestic migration or immigration
- resigned or retired health workers re-entering the workforce

Outflow refers to the number of health workers who are leaving the workforce. They can leave in the following ways:

- retirement/death (This is often 10–20% per year.)
- illness/disability
- absence due to long-term training
- emigration
- movement to the private sector (not-for-profit or for-profit)

Step 4: Estimate the total number of additional health workers (if any) required for the programme (Column E)

This calculation is summarized in the worksheet below. In order to estimate the additional number of health workers required:

- Start with the baseline number of health workers needed (column A)
- Subtract the number of health workers already available (column B) and the inflow of staff (column C) (A B C)
- Add the outflow of health workers (column D).
- The total is the additional number of health workers required (column E).

Figure 33

WORKSHEET: Estimating the Number of Health Workers Required

Type of health worker	Baseline required (A)	Available workers (B)	Inflow (C)	Outflow (D)	Additional workers required E=(A-B-C+D)
	(Community lev	vel		•
Community health nurse					
Community health workers					
Skilled birth attendants					
Other:					
	First-	level health fa	cilities		
Doctors					
Nurses					
Nursing assistants					
Health promotion personnel					
Other health workers					
Pharmacist					
Laboratory personnel					
Other medical personnel					
Other:					
	F	Referral faciliti	ies		
Doctors					
Nurses					
Nursing assistants					
Pharmacist					
Nutrition personnel					
Health promotion personnel					
Laboratory personnel					
Other technicians					
Other health workers					
Storage personnel					
Guards					
Janitors/Cleaners					
Other:					
TOTAL					

6.3.2 Estimating costs of human resources

When the required number of health workers has been determined, estimate the cost of employing these health workers for a given time period. Salaries are often determined by the central level, for example by the Ministry of Health or the Ministry of Manpower. Additional costs, often called fringe benefits, are added to the salaries of health workers. The additional costs can be substantial (see Figure 34).

The total costs for personnel will appear in the overall budget.

6.3.3 Estimating material resource needs

Material resources include

- infrastructure
- capital equipment (including vehicles)
- medicines, vaccines
- medical equipment and supplies
- communication materials
- training materials
- administrative supplies

Infrastructure

Infrastructure includes buildings for both operational activities (e.g. clinics, consultation rooms, pharmacy, wards, storage facilities, training rooms) and administrative purposes (e.g. director's office, accounting, warehouse). The costs of infrastructure can sometimes be offset by the provision of local resources. For example, communities may contribute some labour and materials for constructing buildings.

Capital Equipment

Capital equipment (also called non-recurrent) lasts for several years and requires care and maintenance. Capital equipment includes vehicles (e.g. trucks, cars, motorbikes, bicycles), medical equipment (e.g. X-ray machines), refrigerators, sterilizers, weighing scales, height/length boards, video players, projectors, loudspeaker systems, computers, printers, copiers, maintenance equipment, etc. It is important to take into account the expected lifetime of each item when estimating requirements, and to include maintenance needs.

Figure 34

Fringe Benefits

Staff costs in addition to salary are called fringe benefits. They may be required by law or may be part of the health programme's policies and practices. Fringe benefits include, but are not limited to:

- ✓ Social security
- ✓ Medical insurance
- ✓ Severance pay
- ✓ Annual vacation
- ✓ Housing allowance
- ✓ Transportation allowance
- ✓ Subsidized meals
- Subsidized education and training
- Loans at favourable interest rates

Medicines

The availability of effective medicines is critical for delivering child health interventions. Medicines used should be based on essential medicines lists. Essential medicines are the minimum required for the epidemiological profile of the region or district, i.e. they should treat the most common causes of morbidity and mortality. Essential medicine lists will often differ according to the skill level of health staff. For example, highly trained workers at referral facilities are able to use a wide range of medicines, while workers at first-level health

facilities and community health workers should only use medicines that are appropriate to their diagnostic skills, knowledge, and experience. A shorter, adapted list of essential medicines is appropriate for first-level health facilities, and a more limited list is appropriate for community health services.

For more on essential medicines and IMCI, see the WHO publication, "Drug supply management in the context of IMCI: report of an inter-country training workshop in Bali, Indonesia, 18-24 March 2000", Drug Supply Management Training, CAH/WHO, and other training materials and Figure 35

Collaborating with the essential medicines programme

Programme managers can collaborate with the essential medicines programme by:

- Advising on medicine recommendations for the treatment of key childhood illnesses-based on standard treatment guidelines. Antibiotic recommendations should be based on antibiotic sensitivity testing data.
- ✓ Advising when medicines currently being recommended are inappropriate-because they have proven to be ineffective.
- ✓ Providing accurate and timely estimates of total medicine needs based on local epidemiological data.
- Monitoring whether medicines are getting to health facilities. If not, work with the essential medicines programme and local staff to find out why not and to solve problems.
- ✓ Monitoring appropriate use of antibiotics. Inappropriate use of antibiotics for watery diarrhoea or simple upper respiratory tract infections is common. Use of standard case management guidelines and regular supervision with observation of practice will help to improve practices.

guidelines. For more on estimated medicine needs see: "On being in charge: a guide to management in primary health care."⁹

Estimating and ordering medicines

It is very important to estimate needs carefully and order appropriate amounts of medicines. Ordering too much wastes resources, since some medicines may still be unused after the expiry date. Not ordering enough means that some patients will not receive treatment.

The amount needed of a particular medicine is calculated using the formula below:

Total dose of average course of treatment x Number of patients treated within the purchasing interval

⁹ McMahon, R., Barton, E., Piot, M. *On Being in Charge. A Guide to Management in Primary Health Care,* Second edition. Geneva, World Health Organization, 1992. http://whqlibdoc.who.int/publications/9241544260.pdf

The purchasing interval is the time between deliveries of medicines at a facility or district, e.g. three or six months.

Medicine needs for each childhood illness can be calculated using estimates of the incidence rate of the disease, the number of cases expected and the number of these cases who receive a full course of treatment. Determine the number of patients treated in a period of time from clinic records or estimates from health facility surveys. A process for estimating medicine

needs (co-trimoxazole for standard case management of pneumonia at first-level health facilities) is demonstrated in Exercise L on page 98. Annex E shows a different tool for estimating medicine needs and costs to treat different classifications of ARI in the community, at firstlevel health facilities, and at referral facilities. Annex F contains a worksheet for calculating needs for ORS and zinc to treat children with diarrhoea.

Using non-brand name and generic medicines can lower costs of implementation. They should only be used when they have been demonstrated to be safe and effective.

Communication materials

Communication materials include videos, audiocassettes, DVDs, public address systems, flipcharts, discussion posters, wall charts for clinics and other locations, banners and posters with child health messages, leaflets, calendars, and growth charts. Estimate needs for communication materials based on the health education activities that are planned for a given period.

Training materials

Training materials include materials for use by trainers (e.g. videos, slide shows, trainer's guides), take-home materials to be used by participants during courses (e.g. handouts, modules, chart booklets), and distance-learning materials (e.g. manuals and newsletters). To estimate the needs for training materials, consider the planned number of training courses/sessions and the number of participants expected.

Other supplies

Other supplies, also called consumables, are supplies that are used up and must be replaced. For example, the following consumables are essential to IMCI:

- child health cards
- source of clean water
- spoons, cups and jugs to mix and administer ORS
- syringes and needles
- health cards for mothers
- referral forms
- gloves, tissues, alcohol, dressings

Each technical area will have slightly different supply needs, although many of the same supplies are used by several areas of primary health care. Estimates of supply needs can usually be based on experience Medicines and supplies must be stored properly to achieve optimum shelf-life (see the section on storage below). If suitable storage facilities do not exist, you may need to include storage facilities as an infrastructure need.

MANAGING PROGRAMMES TO IMPROVE CHILD HEALTH

MODULE 2 Planning Implementation



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Planning Implementation

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Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
ARI	Acute respiratory infection
ART	Antiretroviral therapy
ARV	Antiretroviral
CAH	Child and Adolescent Health and Development
CRC	Convention on the Rights of the Child
CHW	Community health worker
DHS	Demographic and Health Survey
EBF	Exclusive breastfeeding
EPI	Expanded Programme on Immunization
ETAT	Emergency triage, assessment and treatment
Hib	Haemophilus influenzae Type B
HIV	Human Immunodeficiency Virus
HMIS	Health management information system
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IPT	Intermittent preventive therapy
IRIS	Immune reconstitution inflammatory syndrome
ITN	Insecticide-treated bednets
IYCF	Infant and young child feeding
LBW	Low-birth-weight
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MNCH-HHS	Maternal, Newborn, and Child Health – Household Survey
MOH	Ministry of Health
NGO	Nongovernmental Organization
ORS	Oral rehydration solution
ORT	Oral rehydration therapy
PMTCT	Prevention of mother-to-child transmission (of HIV)
SBA	Skilled birth attendant
SPA	Service Provision Assessment
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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Figure 1

Programme Planning and Management Cycle



Planning Implementation

The steps to develop an implementation plan are described in this module



Planning Implementation

Introduction

An implementation plan guides the effective delivery of programme interventions by describing in detail how implementation will take place on the ground. The process of developing an implementation plan includes describing the activities for delivering each intervention or intervention package in the home and community, first-level health facilities and referral facilities.

Implementation plans:

- ✓ Are usually developed at each administrative level (national, sub-national and district). Plans at the lowest level (usually the district) are most directly related to field implementation in communities and at first-level health facilities.
- \checkmark Are developed relatively frequently, usually every 1–2 years.
- \checkmark Should focus on improving coverage with the priority interventions.

Decisions about which interventions to include in the child health programme are usually made during strategic planning which is done at the national level every 5–10 years. These decisions have implications for

Interventions to include in the child health programmes are usually specified in the strategic plan

key policies, guidelines, and the provision of essential medicines, vaccines and supplies.

Thus, planning implementation does not usually involve deciding **which** interventions to include, but focuses on **improving coverage** with the priority interventions for the child health programme. However, in some local circumstances, programme managers may choose to implement some of the selected interventions, and not others.

For more information on selecting and prioritising child health interventions, see the WHO guidelines "Strategic Planning for Child Health" (in development).

Learning objectives

At the end of this module, you will understand:

- The preparations needed for developing an implementation plan
- The steps to review implementation status
- Coverage targets and activity-related targets (Note that these were discussed in *Module 1. Introduction.*)
- How to plan to monitor activities
- Components of a workplan and budget
- Some methods for estimating needs and costs for human resources and medicines.

You will have practised the following skills:

- Assessing the current coverage of interventions in your programme, the status of some activity-related indicators, and how well activities were implemented.
- Analysing information and generating ideas on what is needed to meet targets.
- Calculating a target for improved quality of care.
- Selecting activities that will result in increased intervention coverage.
- Choosing priority indicators for monitoring activities and planning how to monitor them.
- Planning the next review of implementation status.
- Estimating human resource needs at a health facility and medicine needs for treatment of pneumonia.
- Reviewing a workplan for a child health programme.

Step 1 Prepare for Planning

Figure 3


Step 1. Prepare for planning

1.1. Identify the planning coordinator

The planning coordinator is responsible for ensuring that an implementation plan is developed. He or she should ideally be an expert in child health issues, with leadership and facilitation skills to ensure progress and to mobilize available technical resources. Coordinators can also play a role in ensuring that plans are used effectively and by the appropriate people. Programme managers often make ideal planning coordinators.

1.2. Select the core planning team

The core planning team is responsible for the work of planning. Therefore, it is important that members have the technical skills required. The planning coordinator is usually responsible for forming this team and organizing the work. To be most efficient, the team should consist of no more than 5-10 people and should be established at the level (national, regional, district) at which planning for implementation is being conducted. *It is important that this team has the support of senior managers and decision makers*—so that the team can get data and talk to staff. This support will also help ensure that the plan will be put into action.

Suggested criteria for selecting team members are listed below:

- ✓ Have necessary technical skills. Skills are needed in several areas, for example: epidemiology, quantitative and qualitative data collection and interpretation, community-based strategies, programme management and implementation, health systems, health policies. Sometimes one individual may have several of these skills.
- ✓ Represent experience at different levels of the health system.
- ✓ Represent programmes along the continuum of care for the mother and child to ensure that experiences from these programmes are considered during development of plans for implementation.
- ✓ Represent partners and stakeholders adequately (see step 1.3 below). It is important to involve partners and stakeholders in planning in order to secure their commitment to the planning process and their investment in implementing the plans.
- ✓ Are available to do the work. Since the work will include review of data, discussion, detailed planning, and writing, team members should be prepared to commit sufficient time.

1.3. Involve stakeholders in planning and implementation

Stakeholders are those who have a 'stake' or an interest in child health and child health programmes. They can be individuals, organizations, or informal groups. Stakeholders at the national level may include international groups (e.g. donors, cooperating partners) and national or political groups or figures (e.g. legislators, governors). At national and lower levels, stakeholders may include local governments (e.g. mayor, city council), local community and traditional leaders, medical/nursing associations, academic institutions,

commercial/private for-profit organization (e.g. pharmacies), nonprofit organizations (e.g. NGOs, foundations), community-based organizations (women's groups, mother's groups), faith-based organizations, schools and teachers, health-care workers, users of health services, and community members.

Why involve stakeholders?

Ownership and commitment by stakeholders is critical to ensuring that plans are implemented. It is important, therefore, that sufficient attention is given to the process of consulting with stakeholders during the development of implementation plans at both the central level and the implementation level.

The five main reasons for involving stakeholders in planning are to:

- develop broad ownership of the plan
- identify resources to support the plan
- motivate collective action based on the strengths of the various partners
- design interventions that reflect the local needs (i.e. respect of local culture and existing systems and approaches) to foster sustainability
- harmonize policies, practices, and messages.

How can stakeholders be involved?

Stakeholders can be involved by asking them to:

- participate in the planning team responsible for developing the implementation plan
- provide input on implementation plans
- participate in individual or group discussions to provide input or comments on plans
- participate in programme implementation in areas where they have expertise, or are already working.

Who are key stakeholders?

The key stakeholders will be different in different settings and sectors. Examples are shown in Figure 4. Informal sector stakeholders can be identified by talking to individuals or groups working in communities, for example, local programme managers, local health staff, NGOs, or community leaders.

Stakeholders should have relevant knowledge and skills to contribute to the planning process. Individuals should not be appointed to the planning team solely because of the position they hold in a community or stakeholder organization.

The selection of stakeholders to be involved reflects the purpose of planning and the underlying values and principles. When, for example, a sector-wide approach is to be used, international donor partners will be a key group to consult. Other likely groups could include communities, key ministries, health professionals, and private sector health-care providers. Planning for implementation needs to involve managers and implementers at the health facility and community levels. Planners must ensure that plans will respond to the needs of the community.

Figure 4 EXAMPLE: Key stakeholders by sector

	Informal/Community	Intersectoral	Formal
Who?	Village and religious leaders Women's group leaders Men's group leaders Health providers (traditional birth attendants, traditional healers, volunteer community health workers)	Local development boards Donors Other ministries - finance - agriculture - education, (teachers) - transportation - water and sanitation	Nurses and midwives Doctors in clinical service (including private practice) District/regional medical officers National MOH staff (e.g. Director of Pharmacy) Medical and nursing schools Teaching institutions Professional associations, NGOs and others active in health provision International health organizations
Why?	To include client viewpoints on the problem and the current performance of the child health system To promote ownership of the problem and the potential solutions within the community To mobilize community resources	To mobilize resources (i.e. transport, development funds, communications, education) Involvement may influence policy	To understand staff perceptions (positive and negative) To promote ownership of the problem and the potential solutions To access and improve the data available To harmonize policies, practices and messages
How?	Community-wide meetings Focus groups Community mapping Key informant interviews	Formal meetings Focus group discussions Meetings with intersectoral representatives	Collection and presentation of data Discussion meetings Participation in audits
Challenges?	May not perceive as a problem (lack of knowledge, gender differences in perception) Traditional practices Mistrust of formal health system Cost/lack of resources	Not traditionally included in these sectors Poor communication/ lack of established relationship Partners push their own priorities Some donors focused on certain geographic areas	Limited number of technical, competent staff Underpaid, poor motivation Negative attitudes Inadequate time Competing activities

1.4. Review timing of planning

Schedule planning so that implementation plans will be available when:

- Governments are allocating annual budgets or staff to particular areas.
- Donors are seeking proposals for funding.
- Local or international NGOs are beginning work in a particular district or group of districts.
- Non-health groups or organizations (community-based organizations, religious groups, teachers, etc.) are looking for ways of being involved with local health projects.

Annex A includes a sample schedule for planning tasks.

1.5. Review the environment

The *environment* or *context* in which health programmes operate influences what can be done. Failure to recognize and accommodate environmental factors can lead to an ineffective implementation plan.

Environmental factors that are important for planning include:

- Local and national politics Politics may influence health policies, the budget allocated to health, and the types of activities that will be approved. Some types of international loans require that various health sector reforms, such as decentralization, are put in place. Some governments have a commitment to working toward the MDGs.
- **Health policies and regulations** Policies may influence elements of a programme including what first-line treatments are available, and whether or not community health workers are allowed to give antibiotics.
- **The health budget** The amount of money available will influence every aspect of planning including staffing, logistics, and the availability of essential medicines, vaccines and supplies. Donor pressures can be a significant influence.
- The state of the economy Areas with high unemployment may need more attention; areas with a high prevalence of poverty may require feeding programmes and more attention to malnutrition and micronutrient deficiencies. A poor economy means fewer resources will be available for health and infrastructure development.
- The socio-economic and cultural context Literacy and poverty are two factors with serious impact on what activities are needed and what activities are possible. Children in poorer areas or from less advantaged subgroups may have greater needs than those from more affluent areas.
- The risk of natural or man-made disasters, such as drought, famine, flooding, political conflict, war, and population displacements, may mean there is a need for different technical and logistical support and emergency plans. Areas with seasonal epidemics (cholera, malaria, dysentery, for example) will need to plan for them.

Figure 5

Impact of environment for planning

The environment (context) in which planning is done can affect the:

- ✓ priority given to planning
- ✓ principles and values expressed in the planning process
- ✓ method by which planning is done and time allocated for it
- ✓ resources available
- ✓ role of different stakeholders
- \checkmark content and focus of the plan

1.6. Identify resources required for planning

The three main resources needed for planning are personnel, information and funds.

- **Personnel.** As described previously, members are needed for the planning team and to work directly on developing the plan. Stakeholders may be involved directly (as part of the planning team), or indirectly (by providing information or advice). Identify all team members early. Assess their availability and willingness to devote time to the process, and tailor their roles to both their skills and availability.
- **Information.** There are four types of information needed:
 - 1. Policies, strategies and guidelines relevant to child health
 - 2. Programme plans for child health, including the most recent implementation plan, strategic plan, proposals or other activity plans
 - 3. Programme guidelines and tools, including health education and counselling materials, and training materials
 - 4. Data on child health, related community practices, and health services. Five primary sources of data are listed below. Planning should use existing data as much as possible. A list of possible sources of data should be established, and each source examined for relevant data. Not all sources will have data applicable for district planning.
 - Routine data from health information systems. These are reported regularly from health facilities to districts and then up the system to the national level. The quality, completeness and timeliness of routine data are highly variable. In developing countries, these systems rarely collect complete data. Community-based health information systems exist in some areas and are often supported by NGOs.
 - ✓ Regular data on programme activities, from monitoring, supervisory visits, and other reports of activities, such as training and community-based activities. This data must be summarized so that the planning team can access and use the information.
 - ✓ Survey-based data. Surveys can be national in scope, or limited to smaller geographic areas. Large sample surveys are often the only valid and reliable method of obtaining good estimates of morbidity and mortality. They may also provide information on caregiver knowledge and practices for child health. Smaller surveys, such as health facility surveys and household surveys, are excellent data sources for the areas in which they are done.
 - ✓ Research data from local and international studies. It is important to carefully review the methods used in the study and the generalizability of the findings before using them.
 - ✓ Qualitative research studies (e.g. focus group discussions). Qualitative data might include information such as local beliefs and perceptions of disease,

local practices related to care of children, care-seeking practices, and barriers to referral.

A list of important information for planning implementation is in Annex A.

- Funds. The amount required will depend on a number of factors including:
 - whether planning team members are paid for their time
 - whether stakeholders are paid for their participation
 - whether or not additional data collection is needed
 - the costs of producing the final implementation plan, the number of copies needed, and how it is to be distributed.

Costs can be kept to a minimum by establishing a small planning team.



EXERCISE A – Prepare for planning

In this exercise, you will review key questions about planning in your child health programme. To prepare for a group discussion, write answers to the questions below.

- 1. Who usually coordinates planning for implementation?
- 2. Is planning usually done by a planning team or by the manager alone?
- 3. Are stakeholders usually involved in the planning process? If yes, what stakeholders are usually involved?
- 4. What is the timing of planning for implementation?
- 5. Are the required resources available to support implementation planning?

6. Which of the following factors have significant influence on planning for implementation in your programme? (Circle all that you feel are very significant)

Local and national politics	Health policies	State of the economy
Health budget	Socio-economic context	Risk of natural disasters
Risk of man-made disasters	Other (specify)	

7. What problems are commonly encountered during planning? Do you think planning is done well? Do you think it can be improved?

When you have completed this exercise, tell your facilitator that you are ready for the group discussion.

Step 2 Review Implementation Status

Figure 6



Step 2. Review implementation status

The planning team starts by reviewing the status of implementation of the child health programme. An understanding of the current status is essential in order to plan how to implement the programme in the future. This review is an important step in planning at any level-the national, sub-national and district.

A review of implementation status examines a synthesis of monitoring data, supervisory reports and activity reports collected during the year, and may sometimes use survey data (when available) to assess changes in intervention coverage and some other activity-related indicators. It assesses progress in implementing activities and compares results against previously-set targets, such as targets for availability or access. It helps a programme manager determine what is working and not working and provides understanding that is used to make plans for the next implementation cycle. (Some may think of this review as an evaluation; these materials call it a "review" to indicate that it need not consume a lot of resources, does not necessarily require outside evaluators, does not require special data collection, assesses the progress of implementation rather than its impact, and is done annually if possible.)

At the national level, the review may take the form of a short programme review¹ or a situation analysis. At sub-national levels, the review should follow the steps described in this section. These steps apply the same principles but could be less extensive and involve fewer reviewers, depending on resources available, the extent of programme implementation and the amount and types of data available to be reviewed. At the district level, the review might be done on a more limited scale by the planning team or the district health management team.

The planning team will assess implementation status using data that was collected during the previous year and then was compiled and summarized for the review. Data may have come from a variety of sources such as a monitoring data, reports of supervisory visits, administrative reports, previous plans, and maybe health facility surveys, household surveys, special studies, discussions with staff at different levels of the programme, and visits to communities.

2.1 Review programme goals and objectives

Goals and objectives provide the overall direction for child health programmes. Look in current strategic and implementation plans for the child health programme to find statements of the goals and objectives that were established at the national level.

Remember that goals are desired changes in childhood nutritional status, morbidity or mortality.

A key objective of any child health programme is to increase coverage, that is, the proportion of the target population who receives an intervention. For example:

¹ A rigorous process is described in *Using Data for Reviewing Child Health Programme (Guidelines for conducting short programme reviews)*. Geneva, World Health Organization, 2009. See Annex G for a description of a short programme review.

- To increase the proportion of infants under 6 months who are exclusively breastfed
- To increase the proportion of children with diarrhoea who receive ORT

A programme may have other objectives such as to improve equity in coverage or improve quality of health care. Keep the programme goals and objectives in mind during all assessment and planning for the programme.

2.2 Review current coverage of interventions and compare it to targets

Effective child health interventions and intervention packages were described in *Module 1: Introduction*. The lists are repeated in Annex B in this module. Turn to Annex B now and review the interventions and packages. Some are currently delivered in your programme.

Population-based coverage indicators provide the best measure of how well interventions are reaching the target population. They must be measured in a household survey. Household surveys on the national level, for example a national Demographic and Health Survey (DHS), are usually conducted only every few years because of the resources involved. For routine review of implementation status each year, current data on coverage may not be available, but it is still useful to review the most recent data available. At the district level, coverage data for the district is only available if specific surveys were planned and carried out.

For each stage of the continuum of care, Figure 7 lists interventions, possible populationbased coverage indicators, and possible sources of data to measure the indicators. The far right column suggests other data that can help to explain reasons for the current coverage.

Record the current coverage for interventions delivered by your programme (if possible). Also specify any targets that were set for coverage, so that these can be compared to the actual coverage achieved.

Period	Intervention	Population-based coverage indicator	Data source ²	Supporting data
PREGNANCY	Antenatal care (ANC)	% of pregnant women who receive at least 2 ANC visits	DHS MNCH-HHS	Qualitative data for ANC quality
	Tetanus toxoid to all pregnant women	% of newborns protected against tetanus at birth	DHS and MICS MNCH-HHS	
	Intermittent preventive therapy with antimalarials	% of pregnant women who received at least 1 dose of IPT (in endemic areas)	DHS and MICS MNCH-HHS	
	Voluntary counselling and testing for HIV and PMTCT	% of HIV+ women attending ANC who receive ARV prophylaxis		

Figure 7

Coverage indicators for key child health interventions and possible sources of data to assess them

² **DHS** is Demographic and Health Survey. Commonly conducted large-scale surveys include the DHS survey (<u>http://www.measuredhs.com</u>) and UNICEF **MICS**3 survey. (<u>http://www.childinfo.org/ mics/mics3</u>) **MNCH-HHS** is the WHO *Maternal, Newborn, and Child Health Household Survey, final draft 2009.* Geneva, World Health Organization, 2009.

Figure 7 (continued) Coverage indicators for key child health interventions and possible sources of data to assess them

Period	Intervention	Population-based coverage indicator	Data source	Supporting data
LABOUR AND	Skilled care at birth	% of births attended by skilled birth attendants	DHS and MICS MNCH-HHS	
DELIVERY		% of births that occurred at health facility	DHS and MICS MNCH-HHS	
	Emergency obstetric and newborn care	% of expected obstetric emergencies who receive treatment (met need)	DHS	
		% of pregnant women having a caesarean section	MNCH-HHS	
POSTNATAL/ NEWBORN PERIOD	Postnatal care visit	% of mothers/newborns who had a postnatal check-up in the first two days after birth	DHS and MICS	
	Immediate initiation of breastfeeding	% of newborns put to the breast within 1 hour of birth	DHS and MICS and MNCH-HHS	
INFANTS AND CHILDREN	Exclusive breastfeeding (EBF)	% of infants less than 6 months of age who are exclusively breastfed	DHS and MICS and MNCH-HHS	Qualitative data on barriers to EBF
	Safe and appropriate complementary feeding	% of infants aged 6-9 months who receive breastfeeding and appropriate complementary feeding	DHS and MICS and MNCH-HHS	Qualitative data on local feeding practices
	Vitamin A supplementation	% of children aged 6-59 months who have received a dose of vitamin A in the previous 6 months	DHS and MICS MNCH-HHS for vitamin A	
INFANTS AND CHILDREN	Immunizations against vaccine preventable diseases	% of children aged 12-23 months who are fully vaccinated (national EPI schedule)	DHS and MICS and MNCH-HHS Immunization coverage surveys Facility-based coverage data if reliable	Proportion of children 12-23 months: completely vaccinated; vaccinated with OPV, DPT, HepB
	Sleeping under an insecticide-treated bednet (ITN)	% of children under 5 years sleeping under ITN the previous night (in malaria risk areas)	DHS and MICS and MNCH-HHS Special studies	Qualitative data on net pricing, distribution and re-impregnation
	Treatment of common childhood illness	% of children under 5 years with fast/difficult breathing who received an antibiotic		
		% of children under 5 years with fast/difficult breathing taken to a health provider for care	DHS and MICS and MNCH-HHS	Qualitative data on barriers to recognition of
		% of children under 5 years with fever who received an antimalarial	Community-based surveillance data	care, and care- seeking
		% of children under 5 years with diarrhoea who received ORT		

2.3 Review status of indicators related to availability, access, demand and quality of health services and knowledge of families related to child health

Programme activities are the work that is done to implement interventions effectively. Activities are planned and conducted for a reason, such as to increase the availability of

services to the target population and their access to the services, to improve the demand for the services, and to improve the quality of the services provided for the target population. Most activities will affect one or more of these aspects.

For example, training first-level health workers in IMCI in additional facilities would increase quality of services and will also have a role in increasing availability and access to IMCI case management. Providing essential medicines at those facilities would also increase access and quality. Training community health workers (CHWs) to promote and counsel about key family and community practices would increase the availability of counselling, should make it more accessible, and should also increase demand for case management services.

Figure 9 (page 20) lists major intervention packages for child health and some activity-related indicators. Data on availability, access, demand and quality of health services, and knowledge of families are usually difficult to find but are very useful in planning implementation. Appropriate sources of these data are Figure 8

Availability, access, demand, quality, knowledge

Availa	bility means that the health services (preventive and treatment) are available to those who need them. For example, the availability of counselling on breastfeeding (preventive service) can be improved by training health workers on breastfeeding counselling. The availability of treatment services can be improved by increasing the opening hours of the clinic, by increasing the number of health workers available to run the clinic, and by ensuring regular supplies of necessary medicines.
Acces	s means that caregivers are able to reach the health services, when they are available. Possible barriers to access include geographic distance, financial barriers (unable to afford costs of transport, goods or services), cultural barriers (husband or other family members may not agree for women to take their sick children to a health facility on their own), or time limitations.
Demar	nd means that clients are motivated to seek and make use of the health services. Improved demand indicates that clients have knowledge of the availability and benefits of the services and are motivated to use them.
Qualit	by means that the health services are provided according to technical standards, and in a way that is appropriate for the target population. Increasing the quality of a service often increases demand for it.
Knowl	edge of families and communities means that the caregivers know about the appropriate home care practices during health and illness, as well as when and where to seek care outside the home.

monitoring reports, activity reports, and, when they are available, health facility surveys and small-sample household surveys. If supervision is done and reported well, many of these indicators can also be calculated from supervisory visit data.

Data are collected over time to track whether activities were **implemented** in the past year and to what extent, for example:

- 6 of the 10 planned IMCI training courses for first-level health facility workers were conducted
- CHWs in 32 of the planned 40 villages were recruited and trained to promote key family and community practices
- All of the planned 2000 c-IMCI counselling cards were printed and distributed to CHWs
- 48% of planned supervisory visits were completed last year

Then the data are used to calculate the **results** of activities, that is, improvements (or declines) in availability, access, demand, quality and knowledge. For example:

- 40% of health facilities have at least 60% of health workers caring for children trained in IMCI
- 35% of health facilities had no stock-outs of essential medicines and supplies for managing common childhood illnesses in the past 3 months
- 53% of villages in the district have a CHW trained to provide education on key family and community practices
- 85% of newly trained CHWs conducted 10 or more household visits to promote family and community practices in the previous month
- 66% of first-level health facilities received a supervisory visit in the previous 6 months
- 80% of sick children attending health facilities who need an antibiotic and/or an antimalarial were prescribed the medicine correctly

Use the best data available to assess each indicator and complete the worksheet (as in Figure 9) to describe the current achievements. If any activity-related target was specified in previous implementation plans, it should be written down also, so that it can be compared to the actual level of achievement.

Figure 9 **EXAMPLE**

COASTAL REGION, INTEGRATIA

WORKSHEET: Status of Indicators Related to Increasing Availability, Access, Demand, and Quality of Services, and Knowledge of Families Relevant to Child Health

Intervention Package	Indicator	Target Year: <u>2007</u>	Current level Year: <u>2007</u>
ANC	% of pregnant women attending ANC who receive all interventions listed in the national ANC package	70%	40%
Skilled care at birth,	% of skilled birth attendants trained in newborn care at birth	80%	60%
emergency obstetric and newborn care	% of first-level health facilities providing basic emergency obstetric and newborn care (24 hours/day, 7 days/week)	70%	55%
	% of hospitals providing comprehensive emergency obstetric and newborn care (24 hours/day, 7 days/week)	20%	5%
Postnatal care	% of villages with trained health worker or CHW to make postnatal home visits	30%	10%
IMCI (Integrated	% of health facilities with at least 60% of health workers caring for children trained in IMCI	40%	46%
management of newborn and child illness)	% of health facilities with no stock-outs of essential medicines and supplies for managing common childhood illnesses in the previous 6 months	80%	60%
	% of health facilities receiving at least one supervisory visit with observation of case management in the previous 6 months	80%	60%
	% of sick children attending health facilities assessed correctly	60%	62%
	% of children attending health facilities who need an antibiotic and/or an antimalarial who are prescribed the medicine correctly	80%	65%
	% of referral facilities that manage severely ill children with oxygen and paediatric delivery systems available in the paediatric ward	45%	25%
Community IMCI	% of villages with a trained CHW or volunteer for promoting key family and community practices	30%	10%
	% of caregivers who know 2 danger signs for seeking care	70%	50%
EPI	% of health facilities with immunization services available daily	90%	90%

2.4 Review major activities in the last plan and assess how well they were implemented

2.4.1 List the major activities in your last implementation plan

Planned activities are usually summarized in the most recent implementation plan or workplan. Sometimes child health plans for different technical areas (for example, newborn health, maternal health, immunization, nutrition) are written by different divisions or departments. In this case, all of these plans will need to be reviewed to get information on planned child health activities.

The main categories of activities for implementing child health interventions are in Figure 10 (next page). It is helpful to review activities for each of the three levels of the health system, that is, home and community, first-level health facilities, and referral facilities. Examine workplans, proposals, or other planning documents to find the activities that were planned for the previous year. List them on a worksheet such as in Figure 11, page 23–24.

2.4.2 Assess how well activities were implemented

Look for information on whether the planned activities were completed and the results of those activities. Assess each activity as follows:

• **Status of implementation:** Determine whether planned activities were implemented fully, partly or not at all.

Information on the status of implementation can be obtained from the most recent programme reports such as routine monitoring or supervision reports, and discussions with staff.

• **Geographic scope:** Note the number (and percentage) of districts or health facilities in which the activities were implemented, and where these are. This will help to determine whether there is some characteristic common to the districts that are implementing activities.

• How well the activity was conducted:

Information on how well activities were implemented may be obtained from programme documents and discussions with staff. Examples of questions and criteria for assessing activities are provided in Annex C.

• Reasons for observed implementation performance:

Write down reasons contributing to the extent of implementation of the activity (fully, partly, not at all), or to how well the activity was done. Programme documents may state reasons, or you may have knowledge of some reasons.

Ac	tivity areas for implementing child health interventions
1.	Advocacy/Resource mobilization Advocating for effective policies and appropriate norms and standards Preparing project proposals for potential donors
2.	Training/Human resource development
	Adaptation of training materials and supportive tools Conducting pre- and in-service training for health personnel Ensuring adequate staffing Limiting staff turnover
3.	Strengthening supplies of medicines and equipment
	Procurement and distribution of essential medicines and vaccines Procurement and distribution of essential equipment and supplies (weighing scales, syringes and needles, etc.)
4.	Strengthening referral pathways
	Development of locally-supported referral schemes Introduction of and adherence to standards for referral care Development of hospital capacity (staff and equipment) to provide comprehensive emergency obstetric and newborn care
5.	Communication/Development of community supports
	Improvement in knowledge and practices, through communication with individuals and groups, mass media, health workers and CHWs
	Developing community supports (such as health volunteers, groups, essential infrastructure, supervision or oversight of activities)
6.	Supervision
	Development of integrated supervisory checklists Conducting supervisory visits to health personnel Supervision of CHWs, community volunteers
7.	Monitoring progress
	Regularly collecting data on activities conducted, resources used, results of activities Analysing data and identifying problems (so they can be solved)

EXAMPLE

COASTAL REGION, INTEGRATIA

On the next page is a worksheet completed by the manager of a region that has 5 districts, 13 primary health facilities, 3 hospitals, 4 towns, and about 120 villages. The implementation plan for the region specified the following priority interventions and related activities:

- in the home and community, c-IMCI (specifically promotion of breastfeeding and complementary feeding, insecticide-treated bednets, immunization, care-seeking for illness)
- in first-level health facilities, IMCI, breastfeeding promotion, ANC, and skilled care at birth
- in referral facilities, management of severe childhood and newborn illnesses, emergency triage, assessment and treatment (ETAT), and emergency obstetric care.

Figure 11 EXAMPLE

Part 4 (Step 2.4): Review the major activities <u>in the last plan</u> and assess how well they were implemented

Complete the following worksheets. These categories can be used to classify the activities:

- 1. Advocacy/Resource mobilization
- 2. Training/Human resource development
- ${\bf 3}.$ Strengthening supplies of medicines and equipment
- 4. Strengthening referral pathways

- 5. Communication/Developing community supports
- 6. Supervision
- 7. Monitoring
- 8. Other (specify):_

WORKSHEET: Assess How Well the Planned Activities were Implemented

FOR IMPLEMENTING INTERVENTIONS IN THE HOME AND COMMUNITY:

Planned activity (Number indicates category of activity)	Status of implementation	Geographic scope (implemented in _ % of districts/HF)	How well activity was conducted	Reasons for observed implementation performance
1 -District-level meeting with stakeholders to share plans about c-IMCI	Completed	Stakeholders from 4 of 5 districts	Good attendance IEC materials provided for stakeholders	Invitations sent out well in advance Donor funding enabled printing of materials
2 -Train CHWs from 40 (of a total 120) villages in promotion of key messages	Completed			
3 - Procure and distribute 30,000 ITNs	Only partially implemented	Only 1 district		Inadequate (only 10% of requested ITNs were received)
4 -Develop referral transport scheme for mothers and sick children in 10 villages	Not done	0		Community leaders not available for discussion and planning
5 -Community IEC activities on timely care-seeking for illness	Completed	100% (5 districts)	Health facilities hung new posters Community dramas well done	Donor funding for posters CHWs enthusiastic about organizing dramas
5-Daily radio messages on use of ITNs and immunization	Only partially implemented			
5 -Reactivate 6 dormant mothers' groups and form 4 new groups to promote infant and young child feeding	Completed	3 districts ,as planned (60% of districts)		CHWs enthusiastic about meeting with mothers groups
6-Develop CHW supervisory checklist	Completed, but not yet printed	NA	Checklist includes counselling on feeding, ITNs, immunization	
7- <i>Monitor monthly the</i> activities of the 42 mothers' groups and the activities of stakeholders	Mostly completed	3 districts	CHWs completed simple forms on dates and activities of groups	Simple forms for CHW

FOR IMPLEMENTING INTERVENTIONS AT FIRST-LEVEL HEALTH FACILITIES

Planned activity	Status of implementation	Geographic scope (implemented in% of districts/HF)	How well activity was conducted	Reasons for observed implementation performance
2-Appoint and train the breastfeeding coordinator	Completed			Donor support has brought new interest
2 -Conduct half-day sensitising training on breastfeeding for health staff at 13 facilities	Completed	12 of 13 facilities attended	IEC materials provided Speakers very good	
2 -Organise 2-day retraining workshop for 19 practicing skilled birth attendants	Completed	21 birth attendants re- trained (4 districts)		
2 -Organise 2-day training for 9 health facility in-charges on management of medicines	Completed	9 health facilities as planned (3 districts)	Practice included; Drug Supply Manual provided	Appropriate materials available; Trainer provided by partner
2-Organise 3-day refresher course for 30 health staff in IMCI	Completed	4 districts represented (10 facilities)	Practice included; staff took IMCI charts back with them	Trainer provided by regional child health
3 -Provide all 13 facilities with updated IMCI and other charts, protocols	Completed	5 districts 13 of 13 health facilities		IMCI materials reprinted late last year
3 -Set up ORT corners in 10 health facilities	Completed	10 out of 13 health facilities	Good	Dr Lhab facilitated process
<i>3-Procure 5 new refrigerators</i>	Ordered but not received			
5- Provide posters for 13 health facilities on exclusive breastfeeding	Completed	100% of health facilities		Donor funding enabled printing of materials
6-Conduct monthly supportive supervision visits to 11 facilities doing ANC	Partial	5 facilities out of 11 doing ANC	Included observation	
7-Monitor quarterly proper medicine management practices	Completed			

FOR IMPLEMENTING INTERVENTIONS AT **REFERRAL FACILITIES**

Planned activity	Status of implementation	Geographic scope (implemented in _ % of districts/HF)	How well activity was conducted	Reasons for implementation performance
2-Provide 3 hospitals with IMCI charts and other protocols	Completed	3 districts	Good	IMCI materials reprinted late last year
2 -Introduce ETAT in 3 hospitals	Partially	1 hospital	Good	International and national experts from MOH and WHO available Hands-on practice Too few trainers
4 -Establish a blood bank at the district hospital	Not completed			Funding not released; Technical assistance not scheduled
7-Monitor monthly the use of standard protocol for Emergency obstetric care	Partially	1 hospital	Good	Dr Lhab introduced and monitored use at his hospital



EXERCISE B – Review implementation status

In this exercise you will practise the steps to review the implementation status of your child health programme. This exercise has several parts which match the sub-steps as described in section 2.0 of this module.

By following the instructions and using the worksheets in the **Workbook**, you will:

- Part 1. Review the current goals and objectives of your child health programme.
- Part 2. Review current coverage of interventions and compare it to targets.

When you return home and have more time, you can use the process that you practise here and copies of the worksheets provided to assess your programme's status, including ALL the interventions implemented by your programme.

- Part 3. Review status of indicators related to availability, access, demand and quality of health services, and knowledge of families and communities relevant to child health.
- Part 4. Review major activities in the last plan and assess how well they were implemented.

To be done in Exercise C:

Part 5. Analyse information and generate ideas on what is needed to reach targets.

This exercise will require data from as many of the following sources as are available: strategic plan, most recent implementation plan, situation analysis, short programme review, most recent Demographic and Health Surveys (DHS) or MICS surveys, any recent smallsample household surveys or health facility surveys, and programme reports such as supervisory and monitoring reports.

It is important to use your own knowledge and experience when assessing implementation status. If a colleague from your child health programme is present at this training, it is helpful to work together to study the data from your country's programme and complete this exercise.

Locate your **Workbook**. It contains all the worksheets, with instructions, that you will need to complete this exercise. Find the pages for Exercise B—Review implementation status. Then follow the instructions to complete each of the parts.

What to do:

- Part 1. Review programme goals and objectives (Workbook, page 3).
- Part 2. Review current coverage of interventions and compare it to targets (**Workbook**, page 5).
- Part 3: Review status of indicators related to availability, access, demand and quality of health services, and knowledge of families relevant to child health (**Workbook**, page 7).

If you are not sure about what to do at any time, ask your facilitator for help.

When you have completed Parts 1, 2 and 3, discuss your work with a facilitator.

Then do:

Part 4: Review major activities in the last plan and assess how well they were implemented (**Workbook**, page 9–10).

When you have completed Part 4, discuss your work with a facilitator.

2.5 Analyse information and generate ideas on what is needed to reach targets

Review your assessment of implementation status so far (all the worksheets you have completed). Also keep in mind any additional information gained from reports of supervision or monitoring, information on training, discussions with health staff, and your own experience.

Indicators measure coverage and other results along the continuum of care for the mother and child–between pregnancy, delivery, the newborn period, infancy and childhood–and the continuum of care across the health system–in the home and community, first-level health facilities, and referral facilities. Having information all along this pathway can give a more complete picture of implementation status.

To analyse all the information and look ahead, answer the questions below. This analysis is best done by the planning team as a group so that as many ideas as possible are included. It is often useful to have a facilitator who can lead and direct the discussion.

• What are the main STRENGTHS and WEAKNESSES of the child health programme in your area?

To answer these questions, consider:

- Are the interventions reaching the target population?
 - Is intervention coverage high or low?
 - Were the targets met?
 - Are interventions delivered at each level of the health system?
 - Is the geographic scope of implementation sufficient?
 - Are vulnerable groups being reached?
- What are the strengths and weaknesses of the activities?
 - Which activities were most successful? Why were they successful?
 - Why were some activities not implemented?
 - Are there reasons why some activities may not have been effective?
 - Is the intervention being delivered by the most appropriate staff?
 - Was planned support received?
 - How can quality be improved?
 - How can equity be improved?
- Are there any issues related to POLICY, STRATEGY, or REGULATORY FRAMEWORK that need to be tackled to address the weaknesses?
- Are you on course to meeting your targets with the current activities? If no, what CHANGES or what ADDITIONAL ACTIVITIES would be needed in the next plan to meet targets?
- What RESOURCES would be needed to conduct the ADDITIONAL ACTIVITIES?
- What OPPORTUNITIES can be used for obtaining these resources?

Figure 12 EXAMPLE WORKSHEET: Analyse Information and Generate Ideas on What is Needed to Reach Targets

What are the main STRENGTHS of the child health programme in your area?

- *1. Interventions are planned across all three levels of the health system.*
- 2. There is a sub-section of the national strategy that aims at reaching vulnerable populations.
- *3. Overall funding is adequate for implementing planned activities.*
- 4. Interventions are delivered by nurses, with a designated a focal person for child health at district level.
- 5. Most health facilities have at least one person managing sick children trained in IMCI.

What are the main WEAKNESSES of the child health programme in your area?

- 1. Supervision is not done adequately due to lack of personnel and transport.
- 2. Although district focal persons for child health are in place, they have many other competing tasks.
- *3.* Long-term planning is difficult due to funding cycle of the government and the main donors.
- 4. *Most activities are done where access is the easiest, leaving the most vulnerable and hard-to-reach populations unserved.*
- 5. *Community health workers are not allowed to prescribe medicines.*

Are there any issues related to POLICY, STRATEGY, or REGULATORY FRAMEWORK that need to be tackled to address the weaknesses?

- *1. The formulation of a long-term human resources development plan*
- 2. The formulation of clear job descriptions for staff
- *3.* Discussion on the role of CHWs in treating common conditions such as pneumonia and malaria
- 4. Development of a national strategy for child health
- 5. Standards of hospital care

Are you on course to meeting your targets with the current activities? If no, what CHANGES or what ADDITIONAL ACTIVITIES would be needed in the next plan to meet targets?

- 1. Development of an integrated supervisory checklist for child health-related programmes
- 2. Integrated plan, including the use of transport for monitoring and supervision

- 3. Improved donor coordination
- 4. Formulation of a long-term training plan
- 5. Improved coordination with the community groups and community leaders

What RESOURCES would be needed to conduct the ADDITIONAL ACTIVITIES?

1. Change in policies or regulations:

MOH directives for conducting integrated supervision

2. Human resources:

A consultant to work on the adaptation of an integrated supervisory checklist

Trained health staff to conduct monthly meetings with the community groups and community leaders

3. Financial resources:

Increased financial resources for transportation for monitoring and supervision

Funds for having quarterly donor meetings in the district

4. Material resources:

Guidelines on roles and responsibilities of donors and other stakeholders

Computers and appropriate software at district health office

5. Community support:

Resource mobilization for recruitment of community health workers

What OPPORTUNITIES can be used for obtaining these resources?

- 1. Health Sector Reform
- 2. Global initiatives such as Health Systems Strengthening Initiatives, Global Fund for Malaria, Tuberculosis, and HIV/AIDS may provide some funding.
- 3. PMNCH (Partnership for Maternal, Newborn and Child Health). It offers an opportunity for mobilizing resources as well as global and national commitments for maternal, newborn and child health.



EXERCISE C – Review implementation status: Analyse information

Part 5: Analyse information and generate ideas on what is needed to reach targets

In this exercise, you will analyse information from the review of your programme's implementation status (Parts 1 through 4). If possible, work with one or more colleagues from your programme to complete this exercise.

Turn in your **Workbook** to the *WORKSHEET: Analyse Information and Generate Ideas on What is Needed to Reach Targets* (page 11–12). You will find questions listed there in a worksheet with space to write your answers.

When you have completed the worksheet, tell your facilitator that you are ready for the group discussion.

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Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
ARI	Acute respiratory infection
ART	Antiretroviral therapy
ARV	Antiretroviral
САН	Child and Adolescent Health and Development
CHW	Community health worker
CRC	Convention on the Rights of the Child
DHS	Demographic and Health Survey
EBF	Exclusive breastfeeding
EPI	Expanded Programme on Immunization
ETAT	Emergency triage, assessment and treatment
Hib	Haemophilus influenzae Type B
HIV	Human Immunodeficiency Virus
HMIS	Health management information system
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IPT	Intermittent preventive therapy
ITN	Insecticide-treated bednets
IRIS	Immune reconstitution inflammatory syndrome
IYCF	Infant and young child feeding
LBW	Low-birth-weight
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MNCH-HHS	Maternal, Newborn, and Child Health – Household Survey
MOH	Ministry of Health
NGO	Nongovernmental Organization
ORS	Oral rehydration solution
ORT	Oral rehydration therapy
PMTCT	Prevention of mother-to-child transmission (of HIV)
SBA	Skilled birth attendant
SPA	Service Provision Assessment
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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Introduction

Managing programmes to improve child health

Child health interventions are treatments, technologies, and key family practices that prevent or treat childhood illness and reduce deaths in children under age 5 years. There are simple low-cost interventions for the prevention and treatment of all the most common causes of newborn, infant and child mortality. An effective child health programme must focus on achieving a high level of coverage¹ with the interventions that have the greatest potential to reduce child mortality in the country.

At the national level, child health programme management and partners should select the most important child health interventions to implement in the country. This selection should be based on consideration of the primary causes of morbidity and mortality in the country and the feasibility of implementing different interventions there.

Child health programme managers at the other administrative levels, such as the region (or province), sub-region, and district, must understand the child survival problems in their area and the framework specified in the country's strategic plan for child health. They must then plan to implement the selected interventions for child health in a way that will be effective in their administrative areas, manage that implementation on an ongoing basis, and periodically evaluate what has been achieved.

Managing programmes to improve child health is an ongoing cycle for every country, carried out in somewhat different ways at different management levels. The overall programme planning and management cycle has two parts, the strategic planning cycle and the implementation planning cycle.

Figure 1 on the next page shows the parts of the overall programme planning and management cycle. The boxes in dotted lines show the **strategic planning cycle**. The strategic planning cycle includes an evaluation of current coverage with child health interventions and child health status (the impact of efforts in the previous years). Based on this thorough evaluation, a strategic plan will be developed to guide the child health programme in the next 5 to 10 years. The plan will set goals, specify the priority child health interventions, and outline how they should be packaged and delivered.

Strategic planning is usually done at the national level every 5 to 10 years and is sometimes done at regional or other levels also. Strategic plans are used to ensure commitment of stakeholders and to advocate for programme resources. They provide overall guidance for implementation and financing to ensure the achievement of the goals. A strategic plan provides the framework for developing implementation plans.²

¹ Coverage is the proportion of the target population that receives the intervention. It is a population-based indicator, usually measured in a community/household survey.

² Strategic planning is not discussed in detail in these guidelines. Detailed guidelines on strategic planning will be presented in a separate manual: "Strategic Planning for Child Health: Workshop Guidelines" currently in development by WHO/CAH.

The **implementation planning cycle**, in shaded boxes, includes planning how the interventions will be implemented, managing implementation on an ongoing basis, and after 1-2 years of activity, reviewing how well implementation was carried out. Then the cycle repeats, beginning with using the results of the review to inform planning for the next year.

Planning implementation helps managers at the national and sub-national levels work out how the interventions can be effectively delivered and what activities and resources will be required. It is usually done every 1 to 2 years. If a strategic plan is available, it states the objectives for child health and the priority interventions to be implemented and thereby provides the framework for the implementation (operational) plans. If a strategic plan has not been developed, it is still necessary to do implementation planning to manage the child health programme in the short term.



Programme Planning and Management Cycle

Figure 1

Figure 2

Comparison of Strategic and Implementation Plans

Strategic plan

- Prepared at national level to guide the country's child health efforts
- Reflects a broad perspective of progress needed in child survival and health and how progress should be achieved in the future
- Usually for 5–10 years
- The country's major partners in child health should be involved in its development
- Provides framework; states goals, objectives, priority interventions, coverage targets
- Specifies priority interventions to be implemented to address major causes of morbidity and mortality
- Includes impact and coverage indicators that will be evaluated every 3–5 years
- Includes overall guidance on financing needed

Implementation plan

- Prepared for a geographic area to guide implementation in that area (the country, a region, a district)
- Reflects specific knowledge of how interventions can be implemented in the community, at first-level health facilities and at referral facilities; what the programme can do or provide to enable successful implementation; and resources required to carry out activities
- Usually for 1 (or 2) years
- Stakeholders and partners in the geographic area should be involved in its development
- States targets for activities
- Specifies activities to be implemented to deliver the priority interventions in the geographic area
- Includes activity-related indicators that will be monitored and also reviewed at year-end
- Includes budget for the year, based on activities planned (in order to meet needs of children in the geographic area)

Where can a programme enter these cycles?

A sub-national area may start planning at almost any point in these cycles. To develop an implementation plan, managers should get together and use the best available evaluation data on what has been done so far and the results of the work. If the available data is very little, the implementation plan should include an increase in evaluation activities, so that better data will be available for the next planning cycle.

If the country **has** a strategic plan, it will provide some direction for planning implementation, such as the objectives for child health and the priority interventions that should be implemented. If a country does **not** have a national strategic plan, a strategic planning cycle should begin with an evaluation of child health status and coverage of child health services.

Learning objectives

At the end of this module, you will understand:

- The purpose of this training
- The global child health situation and the importance of epidemiology for planning effective child health programmes
- Recommended child health interventions and packages
- Principles for delivery of interventions: the continua of care, packaging of interventions, coverage and equity
- Definitions of terms that are important for planning and managing child health programmes including goal, objective, indicator, activity, coverage, impact, target.

You will practise:

- Interpreting child health data
- Selecting an intervention package and selecting the most important level to implement it
- Using terms important for planning and managing child health programmes including goal, objective, indicator, activity, coverage, impact, target.

1. About this training

Managing Programmes to Improve Child Health is designed to give managers essential knowledge and skills that they can use to improve programme management. Many child health managers have backgrounds in medicine or nursing, and have never received training in programme management. It is assumed that they will pick up necessary skills, although this is often not the case. For this reason, training in key management concepts and skills is essential.

Better planning and management of child health programmes is urgently needed. Although simple and effective interventions to reduce child deaths are available, these interventions are often not reaching the children who most need them. Programmes that are well planned and managed are more likely to improve intervention coverage and therefore reduce child deaths. These programmes are more likely to reach the Millennium Development Goal for child mortality (a two-thirds reduction in under-five mortality by 2015 from 1990 levels).

1.1 Who is the target audience?

These guidelines are designed primarily for managers of programmes related to child health at the sub-national levels such as regional, provincial, sub-regional, and district. These are the managers that must take the vision for child health described by the national-level planners in the strategic plan and turn it into action on the ground. Many parts of this course may be relevant to national-level managers also.

In some countries, a child health programme as such does not exist, and an overall child health programme manager at national level and/or child health managers at sub-national levels also do not exist. The child health programme(s) will be a configuration of many small and larger programmes and activities with different funding and directors. For example, there may be different managers for nutrition, safe motherhood, and child health including IMCI.

Managers who are responsible for part of the child health-related activities can apply the skills described in this training for that part. In addition, the training will broaden perspectives on how any child health activities should fit with activities of other departments or programmes directed at the same goals of improving child health, and the advantages of collaborative planning.

1.2 What is taught?

Managing Programmes to Improve Child Health describes in detail how to perform two major steps in the implementation planning cycle. Those steps are:

- develop an implementation plan and
- manage implementation.

This course teaches how to do these steps as they would be done by managers at sub-national levels. These steps may also be done at the national level in a way that is appropriate for that level.

Figure 3

The Implementation Planning Cycle



Below is a brief description of the steps addressed in this course.

Develop implementation plan

Implementation plans specify in detail how interventions will be delivered and include activities, tasks, budget, and monitoring. An implementation plan is usually developed every 1-2 years, based on the framework of the strategic decisions for child health made at the national level.

Key steps in developing an implementation plan include:

- 1. *Prepare for planning* forming a planning team, involving stakeholders, and reviewing the timing and resources needed.
- 2. *Review implementation status* using data from different sources to assess strengths and weaknesses of previous implementation.
- 3. Decide on *programme activities* setting activity-related targets and planning activities to implement interventions in the home and community, first-level health facilities and referral facilities.
- 4. Plan *monitoring of implementation of activities* selecting monitoring indicators and planning how to monitor them.
- 5. Plan for *the next review of implementation status* planning what will be assessed, how data will be collected, and who will conduct the review.
- 6. Write a *workplan* and *budget*.

These steps are addressed in Module 2: Planning Implementation.
Manage implementation

Managing implementation is the process of getting activities and tasks done according to the implementation plan. Important management skills are often general skills that cut across several technical areas. Steps involved in managing implementation are listed below, with key skills needed to perform them.

- 1. Advocate for child health
 - ✓ Preparing and giving an advocacy presentation
- 2. Mobilize resources
 - ✓ Preparing a presentation to ask for support from a strategic partner
 - ✓ Preparing a letter of intent to a donor
- 3. Manage resources
 - ✓ Calculating quantities of medicines needed
 - ✓ Monitoring expenditures
- 4. Manage supervision
 - ✓ Analysing common problems found during supervision
 - ✓ Giving feedback during supervision
- 5. Monitor progress
 - ✓ Analysing monitoring indicators to identify successes and problem areas

These steps and skills are addressed in Module 3: Managing Implementation.

On the next two pages are flowcharts that show the substeps described in *Module 2: Planning Implementation* and *Module 3: Managing Implementation*.

These training materials are not a comprehensive guide to management. More detailed information on all aspects of management is available from many sources, including WHO reference documents, textbooks, journal articles and other publications. Useful references have been listed at the end of each module.

These materials focus on **improving coverage with effective child health interventions**. They also address the important concepts of quality of care (providing services of a good quality), and equity (ensuring that all children receive services, not just the children who are closer, or economically better off, or part of the majority social groups).

This planning is child-centred and needs-based. That means that plans should be written for delivering specific interventions in a way that will reach as many children as possible, in order to improve child survival and health. Funding is then sought in amounts sufficient to implement the plans. The alternative is resource-based planning, which usually means planning to use the available resources to implement activities that are easily funded, or only to continue what was done last year, or to use limited resources to help geographic areas or social groups that are easiest to reach or politically favoured. Resource-based planning is not recommended, as it is unlikely to enable achievement of child health objectives.





Flowchart: Manage implementation



1.3 What materials and learning methods are used?

There are 3 modules. These are summarized below.

Module title	Content	Learning methods	Practice methods
1: Introduction	The programme planning and management cycle The implementation planning cycle Purpose of this training Background to child health: understanding the problem Effective interventions Principles of delivery of interventions Definitions of terms	Presentation/ reading/ written exercises/group discussions	Individual and group exercises
2: Planning Implementation	Prepare for planning Review implementation status Decide on programme activities Plan monitoring of implementation of activities Plan for a review of implementation status Write a workplan and budget	Reading/ presentations/ interpretation of local data/written exercises/group discussion	Use of available data to review implementation status Planning activities for implementation of an intervention package Practice of skills in exercises about fictional country
3: Managing implementation	Advocate for child health Mobilize resources Manage human, material and financial resources Manage supervision Monitor progress and use results	Reading/written exercises/role play/ group discussions	Role play presentations Application of management skills to your implementation plan Application of skills to exercises about fictional country

1.4 How are the materials to be used?

These materials are designed to be used as guidelines for a **facilitated workshop**.

Background data is needed for this workshop: You will use policy and programme information from your own setting to help develop your skills in planning implementation. You should have received a list of the information needed in advance of the workshop. If possible, regional and district managers brought data from their own regions or districts. If local data are not available, facilitators may provide some.

If these materials can be **adapted** appropriately, they might be used in other ways, such as a reference guide for self-learning, for on-the-job training, or as a part of pre-service training.

2. Child health epidemiology and effective interventions

Child health programme managers at sub-national levels, such as the region (or province), subregion, or district level, must understand the child survival problem in their geographic/administrative area and the framework specified in the country's strategic plan for child health. They must then plan to implement the selected interventions for child health in a way that will be effective in their areas, manage that implementation on an ongoing basis, and periodically evaluate what has been achieved.

2.1 What is the target population for child health programmes?

Child health programmes focus on children from birth up to 5 years of age. Figure 6 shows the human life-cycle including the life stages from pregnancy through birth, the neonatal period, infancy, childhood, adolescence and adulthood. The target population for child health programmes includes the following children:

- newborn or neonate (birth up to 28 days of life)
- infant (birth up to age 1 year), and
- child age 1 up to 5 years (12 up to 60 months old)

The relative mortality and morbidity rates for newborns, infants and all children will differ between countries and sometimes within countries. For example, the contribution of newborn mortality to total mortality in children less than 5 years of age ranges from 16% to 50%. In countries where newborn mortality contributes 30% or more of total under-five mortality, programmes require a very substantial emphasis on newborn health.

Human Life-Cycle



Figure 6

Key points: Target group for child health programmes

- ✓ Child health programmes focus on all children from birth up to 5 years of age.
- ✓ A child is classified as newborn from: Birth up to 28 days of life.
- ✓ A child is classified as an infant from: Birth up to 12 months of age (up to age 1 year).
- ✓ The relative mortality rates of newborns, infants and children under 5 years of age should help define which interventions are selected and how they are implemented.

2.2 What is the problem?

Child mortality remains unacceptably high in many developing countries. The World Summit for Children in 1990 set a goal for reducing infant and child mortality by one third between 1990 and the year 2000, or reducing infant and child mortality to 50 and 70 per 1,000 live births respectively, whichever is less. However, this goal remained far from being achieved. Between the early 1990's and 2000, worldwide under-five mortality declined by only slightly over 10%, from 91 deaths per 1000 to 79 per 1000, falling short of the one-third reduction target.

Millennium Development Goals

In 2000, building upon a decade of major United Nations conferences and summits, world leaders came together at the Millennium Summit in New York and adopted the **United Nations Millennium Declaration**, committing all nations to achieve eight goals that are known as the Millennium Development Goals (MDGs) and a series of time-bound targets with a deadline of 2015. They represent a vision for the next millennium in the areas of poverty, hunger, education, gender equality, health, and environment. The MDGs form a blueprint that was agreed to by all the world's countries and leading development institutions.

The fourth of eight MDGs is to reduce child mortality with a target of reducing under-five deaths by two-thirds between 1990 and 2015.

A gap remains between our knowledge of what needs to be done and action on the ground. Better management of health systems and resources is one essential element required to apply interventions more effectively in order to reach the MDGs. Figure 8



The Rights of the Child

In many countries, the rights of children are seriously neglected or violated. The Convention on the Rights of the Child (CRC) is the principal international human rights treaty which sets out the particular rights of children and adolescents up to the age of eighteen. CRC principles should guide all activities directed towards children, including child health activities.

The four key principles of the Convention on the Rights of the Child are:

- **Non-discrimination** (Article 2): to ensure that rights apply to all children irrespective of their or their caregivers' race, sex, language, ethnicity, opinion or other characteristics
- **Best interests of the child** (Article 3): to ensure that policies and programmes should always consider the best interests of all affected children
- The right to life, survival and development (Article 6): to ensure these rights are recognized as fundamental to a State's obligation to promote the health and well-being of children
- **Respect for the views of the child**: to ensure that children and their caregivers participate as much as possible in programming and policy making.

Child rights are implicit in all aspects of child health programming and can be measured in three broad categories:

- **Policies and guidelines** which are required to implement technically sound programmes, including laws and strategies to protect children.
- **Interventions to improve health and survival** which need to be available, accessible, of an appropriate quality, and equitable.
- **Mortality and morbidity** rates which are markers of how effectively programmes are reaching children and caregivers.

Annex A outlines definitions and indicators for the rights of the child.

2.3 What are the major causes of morbidity and mortality in children?

In most developing countries a relatively limited number of conditions cause at least 70% of all child mortality and should be the focus of child health programmes (see Figure 10). These conditions are: neonatal causes, pneumonia, diarrhoea, malaria, measles, HIV/AIDS. The relative importance of these conditions will vary between countries and sometimes within the same country. Recent published estimates indicate that nutrition-related factors are underlying causes for about 35% of all under-five deaths; therefore, interventions to address undernutrition are critical to all child health programmes, regardless of the primary causes of mortality. In addition, co-morbidity (the presence of two of more infectious diseases at the same time) may result in additional deaths–greater than that expected from either cause alone.

The epidemiology of mortality in children is important for planning since it will help determine which interventions should be given the most emphasis. For example, in sub-Saharan Africa, malaria and HIV contribute more to total child mortality than newborn causes. In contrast, in South-East Asia, malaria and HIV contribute much less to total child mortality, and newborn causes contribute much more. See Figures 11 and 12 for regional differences in mortality.

Figure 9

Key Points: Causes of death in children

- ✓ Sound epidemiological data are essential for planning
- Most under-five mortality is caused by problems in the newborn period and by 5 conditions: pneumonia, diarrhoea, malaria, measles, HIV/AIDS
- Undernutrition and/or micronutrient deficiencies are underlying causes for about 35% of all under-five deaths
- ✓ Primary causes of mortality vary between and within countries

Figure 10

Major causes of death in neonates and children under-five in the world - 2004



Sources: (1) WHO. The Global Burden of Disease: 2004 update (2008); (2) For undernutrition: Black et al. Lancet, 2008





Distribution of causes of under-five deaths by WHO region

Source: CHERG/CAH/WHO (data published in The World Health Statistics 2008)



Sources: CHERG/CAH/WHO: 2000 estimates of the distribution of causes of death; MHI/IER/WHO: 2006 estimates of number of deaths

2.4 How can child deaths be prevented?

Relatively simple low-cost interventions are available for the prevention and treatment of almost all of the most common causes of newborn, infant and child mortality.

Figure 13
About Child Health Interventions
Child health interventions can prevent or treat illness and reduce deaths in
children under age 5 years.
Examples of preventive interventions include tetanus toxoid
immunization, exclusive breastfeeding, and sleeping under an
insecticide-treated bednet.
Examples of treatment interventions include emergency
obstetric care, oral rehydration therapy, antibiotics for dysentery
and for pneumonia, and management of severe malnutrition.
Interventions are usually delivered using a combination of:
a) services (to provide preventive and treatment interventions)
b) health education (to improve knowledge and practices)
c) distribution of essential commodities (such as bednets), and
d) infrastructure (such as potable water and latrines).
· · · · · · · · · · · · · · · · · · ·
An intervention is efficacious if it has been demonstrated to reduce child
deaths under controlled (research) conditions.
An intervention is affective if it has been demonstrated to reduce child
deaths under real-life (programme) conditions

Effective interventions to improve child survival should form the basis for all child health programmes. Global coverage with most of these effective interventions, however, is still below 50% – sometimes substantially so. In most regions of the world with high child mortality, effective interventions are not reaching enough of the mothers and children who need them.

Effective interventions for the prevention or treatment of all important causes of death in children and newborns are summarized in Figure 14.

Figure 14

Examples of effective interventions for improving newborn and child survival

(adapted by WHO/CAH from the Lancet Neonatal Survival series, Lancet Child Survival series and WHO/MPS list of interventions)

Pregnancy

Tetanus toxoid immunization

Birth and emergency planning

Detection and management of problems complicating pregnancy (e.g. hypertensive disorders, bleeding, malpresentations, multiple pregnancy, anaemia)

Detection and treatment of syphilis

Intermittent preventive therapy for malaria#

Information and counselling on self-care, nutrition, safer sex, breastfeeding, family planning

Sleeping under an insecticide-treated bednet#

Prevention of mother-to-child transmission of HIV⁺ ##

Labour, birth and 1-2 hours after birth

Monitoring progress of labour, maternal and foetal well-being with partograph

Social support (companion) during birth

Immediate newborn care (resuscitation if required, thermal care, hygienic cord care, early initiation of breastfeeding)

Emergency obstetric and newborn care for complications

Antibiotics for preterm premature rupture of membranes*

Antenatal corticosteroids for preterm labour*

Prevention of mother-to-child transmission of HIV⁺ ##

* Requires a stronger health system. Consider introducing when simpler interventions are at high coverage.

Situational intervention, only necessary in setting where malaria is endemic ## Situational intervention, only necessary in setting where HIV prevalence is high

⁺ The four pillars of prevention of mother-to-child transmission of HIV (**PMTCT**) include:

- (i) preventing HIV infection in women
- (ii) preventing unintended pregnancy among HIV-infected women
- (iii) preventing transmission from an HIV-infected woman to her baby by caesarean section, antiretrovirals and safer infant feeding options
- (iv) providing care, support and treatment for HIV-infected women, their infants and children.

Figure 14 (continued) Effective interventions for improving newborn and child survival (continued)

Newborn period (after the first 1-2 hours after birth up to 1 month)

Exclusive breastfeeding Thermal care Hygienic cord care Prompt care-seeking for illness Extra care of low-birth-weight (LBW) infants Immunization Management of newborn illness Prevention of mother-to-child transmission of HIV⁺ ##

Older infants and children (1 month up to 5 years)

Preventive interventions Exclusive breastfeeding (up to age 6 months) Safe and appropriate complementary feeding starting at 6 months with continued breastfeeding (up to age 2 years and beyond) Sleeping under an insecticide-treated bednet # Immunization Vitamin A supplementation Handwashing and proper disposal of faeces Birth spacing of 24 months or more **Treatment interventions** Oral rehydration therapy for diarrhoea Zinc for diarrhoea Antibiotics for dysentery Antibiotics for pneumonia Antimalarials Management of severe malnutrition

Management of HIV-exposed and HIV-infected children##

Situational intervention only necessary in setting where malaria is endemic ## Situational intervention only necessary in setting where HIV prevalence is high

⁺ The four pillars of **PMTCT** include:

- (i) preventing HIV infection in women
- (ii) preventing unintended pregnancy among HIV-infected women
- iii) preventing transmission from an HIV-infected woman to her baby by caesarean section, antiretrovirals and safer infant feeding options
- (iv) providing care, support and treatment for HIV-infected women, their infants and children.

Criteria for **effective** interventions include:

- Sufficient evidence of efficacy. A causal relationship has been established between the intervention and reductions in cause-specific mortality in children under age five years in developing countries.
- Feasibility for high levels of implementation in low-income countries.

Effective interventions to improve child survival should form the basis for all child health programmes.

It has been estimated that 99% coverage with interventions against the most important causes of child mortality would prevent at least 63% of all childhood deaths each year in the 42 countries with the highest mortality rates. Of all child deaths (approximately 10 million in 2000), it is estimated that 6 million are preventable.

Figure 15

Intervention	Reduction in under-five deaths
Antenatal care	4%*
Skilled care at birth	13%*
Postnatal care: routine care for all newborns, additional care for LBW, treatment of neonatal sepsis	13%*
Exclusive breastfeeding	13%
Appropriate complementary feeding, including micronutrients	6%
Immunization	5%
Insecticide-treated bednets	7%
ORT and zinc for diarrhoea	19%
Treatment of suspected pneumonia	6%
Treatment of malaria	5%

Interventions most effective in improving child survival

* Estimates from Lancet Neonatal Survival Series Paper 2

All other estimates are from Lancet Child Survival Series Paper 2.

2.5 How well are effective interventions reaching children?

Intervention coverage is

the proportion of children under age 5 years (or their caregivers, or pregnant women) in the population who needed the intervention and have received it.

Figure 16

Although global coverage with breastfeeding and measles vaccine is relatively high, coverage with most of the effective preventive and treatment interventions remains low or very low. The 2008 estimates of coverage with key interventions, in 68 countries accounting for 97% of maternal and under-five deaths, is summarized in Figure 16 below. Clearly, effective interventions are not reaching children who need them. Poor children, in particular, are far less likely to receive these interventions compared to children living

in countries, communities and families with better resources. There are a number of reasons why coverage has remained low, including acceptability, cost-effectiveness, and complexity of the interventions.



Estimates of coverage with key interventions (%)

Source: WHO/UNICEF and partners. *Countdown to 2015: Tracking progress in maternal, newborn & child survival – The 2008 report.* UNICEF, 2008.

2.6 Integration and coordination with other programmes bring opportunities

Each child health programme needs to work with and coordinate with the other health programmes that address the same target groups and have activities in common with the child health interventions (see Figure 17 below). Some of these programmes may be able to prepare an implementation plan together and integrate some activities. Even if separate plans will be written, it is important to communicate with other health programmes to understand what they have accomplished and what is planned, so that your plan can avoid conflicts or duplication and better meet the needs of the target population.

Figure 17



Several programmes contribute to child health

Coordinating with programmes beyond the Ministry of Health can also bring opportunities, such as to provide information to families and communities. For example, programmes involved in food security and distribution and income generation programmes may have contact with community members and may be willing to address child health-related topics that complement their purposes.

Figure 18

	Key Points: Interventions to prevent child deaths
~	Effective interventions that are feasible for implementation in developing countries are available. These include strategies to both prevent disease and treat disease when it occurs.
~	Interventions that have been proven to be effective for child health should form the basis for all child health programmes.
~	Coverage with most of the effective interventions is still universally low.
~	More interventions will become available as data on effectiveness are collected.



EXERCISE A – Review child health epidemiology and effective interventions

In this exercise you will answer questions about child health epidemiology globally and child health planning in your country or area of work.

- 1. Write "T" by the statements that are True. Write "F" by the statements that are False.
 - a. ____ The global overall rate of decline in under-five mortality in the last 10 years has been sufficient to meet the Millennium Development Goal for child health.
 - b. ____ Undernutrition is an important contributor to child deaths from the major causes.
 - c. _____ On a global level, coverage with ORT for diarrhoea and with antibiotics for pneumonia is high, because these interventions have been promoted for a long time.
- 2. What are the major causes of child mortality in your own country or area?

Is the epidemiology of child health uniform in your country or are there regional differences? What are the differences?

How would you use data on the epidemiological differences between regions in your own country to plan for child health?

- 3. Name three interventions that would have the greatest impact on improving child survival in your country:
 - a)
 - b)
 - c)
- 4. Does your country have a national strategic plan or national policy on child health?

If yes, is it based on epidemiological data that takes into account the major causes of morbidity and mortality in children in your own country?

When you have completed this exercise, tell your facilitator that you are ready for the group discussion.

3. Principles of delivery of interventions

3.1 The continua of care for child health

The two continua of care are guiding principles for planning child health programmes.

The continuum of care for the **mother and child** includes the life stages from pregnancy, through birth, the newborn period, infancy and childhood. Interventions should be targeted at all of these stages in order to maximize impact.

The continuum of care across the **health system** includes the levels at which interventions are delivered: home and community, first-level health facilities and referral facilities. Implementation must occur at each of these levels in order for interventions to be most effective. Facility-based interventions should be balanced with those in the home and community, since the prevention and management of child illness and mortality begins in the home.

Thinking about the two continua of care can be a useful way of organizing programme planning and implementation. It allows decisions to be made more easily about:

- what interventions to implement, and
- where interventions should be implemented.

See Figure 19 for example interventions along the two continua of care.

Continuum of care for mother and child (from pregnancy, through birth, the newborn period, infancy and childhood) – deciding what interventions to implement

There are a number of factors that need to be taken into consideration when deciding what interventions to implement in order to prevent deaths, including causes and distribution of child mortality, proven efficacy of interventions, and feasibility, cost, acceptability, and health system requirements of implementation.

For example, when the focus of the programme is on reducing newborn mortality, then interventions need to be considered that address the target populations at these stages:

- pregnancy
- at birth and 1–2 hours after birth, and
- during the newborn period.

Continuum of care across the health system – deciding where to implement interventions

Where to implement which interventions will be guided by a number of factors, including technical complexity, availability of trained staff, acceptability to community members, access to health facilities, demand for services, and equity. Levels for delivery of interventions include:

• Home and community. Many interventions need to be directed at this level. Community-based health workers can provide some services close to home. Caregivers can be trained in appropriate care-giving practices. They can also be trained to recognize illness, treat it at home if appropriate, and recognize signs that mean they need to take a child to the next level of the health system for medical care. A number of issues are important when developing programmes at this level, including how to deliver key messages, how to support sustained changes in behaviour, how to train and support community workers, and how to achieve equity of coverage.

- **First-level health facilities**. In most settings, this level is required in order to provide additional preventive and treatment services, such as standard case management and immunization, as well as counselling and referral. Key implementation issues include how to train and supervise health staff, how to manage staff turnover, how to provide medicines and supplies, how to maintain quality of care, and how to better link facilities with communities.
- **Referral facilities**. These are required in most settings in order to provide high-level care such as the management of obstetric complications or the management of severely ill children. Key implementation issues include availability of referral services to the target population and their access to those services; these are often limited.

All levels have a role in implementation, but the balance between them should be appropriate for local conditions. For example, in areas where access to health facilities is limited, most babies are born at home. In this setting, interventions to improve postnatal newborn care (early and exclusive breastfeeding, thermal care, hygienic cord care, extra care of LBW infants, and prompt care-seeking for illness) need to be directed to the home and community in addition to health facilities. At the same time, health facilities need to be strengthened to provide appropriate care for newborn illness.

Figure 19

Interventions for Improvement of Child Health along the Continua of Care

	Home and community	First-level health facility	Referral facility
Pregnancy	Promote and support antenatal care (ANC) Information and counselling on self-care, nutrition, safer sex, breastfeeding, family planning Birth and emergency planning Sleeping under insecticide-treated bednets	Tetanus toxoid immunization Birth and emergency planning Detection and treatment of syphilis Intermittent preventive therapy (IPT) for malaria Prevention of mother-to-child transmission of HIV (PMTCT) Detection of complications of pregnancy	Management of complications of pregnancy
Birth and 1-2 hours after birth	 Promote and support skilled care at birth Promote and support key practices, e.g. Clean delivery Social support (companion) during birth Early initiation of breastfeeding Newborn thermal care 	Monitoring progress during labour Social support (companion) during birth Immediate newborn care (resuscitation if required, thermal care, hygienic cord care, early initiation of breastfeeding) Prevention of mother-to-child transmission of HIV Detection of obstetric complications	Clinical management of obstetric complications
Newborn period	 Promote and support key practices, e.g. Exclusive breastfeeding Thermal care Hygienic cord care Extra care of LBW infants Prompt care-seeking for illness 	Exclusive breastfeeding Thermal care Hygienic cord care Extra care of LBW infants Prevention of mother-to-child transmission of HIV Management of newborn illness Immunization	Management of severe newborn illness
Infancy and childhood	 Promote and support key practices, e.g. Exclusive breastfeeding Complementary feeding Sleeping under insecticide- treated bednets Handwashing and proper disposal of faeces Care-seeking for preventive interventions (e.g. vaccines) Care-seeking for illness Community case management of diarrhoea, pneumonia, malaria and malnutrition 	Immunizations Vitamin A supplementation Standard case management including: - ORT and zinc for diarrhoea - Antibiotics for dysentery - Antibiotics for pneumonia - Antimalarials Care for HIV-exposed and HIV- infected children - Co-trimoxazole prophylaxis - ART	Management of severe infant and childhood illness

3.2 Packaging of interventions

In order to determine whether interventions are efficacious (in a research environment) and effective (in a real programme), they are tested individually–so that their impact on overall mortality can be measured. However, in the real world, it is not practical to implement interventions on their own. Instead, the most cost-effective strategy for implementing child health interventions is as "**packages**" of several interventions together.

Several newborn and child health intervention packages already exist. Most new child health interventions can be added or linked to existing intervention packages. For example, vitamin A supplementation is often added to existing immunization programmes.

In some cases, new intervention packages may need to be added. For example, a country with vertical disease control programmes that wants to move towards a more integrated approach to child care might adopt the IMCI package, so that health workers managing sick children are taught to use the IMCI approach, rather than separate case-management approaches for managing diarrhoea, pneumonia, malaria and malnutrition.

Packaging is a way of **integrating or combining** child health interventions. Integration is essential for making programmes feasible, because it reduces programme costs and improves programme effectiveness. Costs are much higher when individual interventions are delivered separately, and the burden on both the health system and on clients makes separate programmes more difficult to sustain.

Packaging interventions can reduce programme costs by:

Minimizing programme start-up costs by linking with existing interventions. Adding on to existing programmes avoids some costs of starting a new programme activity since staff and systems to support the programme are already in place.

Example: Care of an HIV-exposed or HIV-infected child was added to the IMCI package.

Promoting or implementing more than one intervention at the same time; using the same health workers and communication channels to deliver several interventions. This is particularly important when the number of staff and number of contacts with women and children are limited.

Examples: Health workers giving immunizations can be trained to give micronutrients or to conduct simple counselling on feeding. Community-based health workers responsible for primary health-care education and counselling can be trained to give essential pregnancy, newborn and child health messages as well. Activities to improve the availability of essential medicines and vaccines can improve the availability of supplies for several interventions (immunization, micronutrients, essential antibiotics) at the same time.

Reducing the costs of training. If training for different interventions is done together, rather than separately, then training costs and time away from work can be reduced.

Examples: IMCI training saves time as compared to separate training courses on management of diarrhoea, management of ARI, and malaria treatment. "Infant and Young Child Feeding Counselling: An integrated course" reduces the training days from 11 to 5 and the Training of Trainers from 11 to 5 days by bringing together three previously separate courses:

- Breastfeeding Counselling: A training course 5 day course (5 day TOT)
- HIV and infant feeding counselling: A training course 3 day course (3 day TOT)
- Complementary feeding counselling: A training course 3 day course (3 day TOT)
- ✤ Making supervision and disease surveillance more efficient.

Integrated supervisory checklists, which use the same supervisors to review several technical areas at one time, can save in staff and travel expenses. Similarly, integrated health information systems, which collect information on several diseases at the same time, avoid duplication of work.

Packaging interventions can increase programme effectiveness by:

• Ensuring that all important causes of mortality are addressed at the same time.

Example: The IMCI approach aims to prevent or treat all the most important causes of infant and child mortality, and provide nutrition screening and counselling. It replaces vertical programmes for diarrhoea, pneumonia and malaria. This approach recognizes that children often have more than one problem at the same time and that undernutrition is a factor in a high proportion of all child deaths. All causes need to be addressed in order to maximize impact on mortality.

Example: Properly training a skilled birth attendant (including how to use a partograph, conduct a clean delivery, warm the newborn, initiate breastfeeding early, recognize when to refer for a birth complication or for severe illness, and give counselling on breastfeeding and recognition of danger signs) will potentially limit mortality from hypothermia, neonatal tetanus, sepsis, and birth complications. Training the skilled birth attendant to apply just one or two of these interventions is less likely to reduce overall newborn mortality than training an attendant to apply all of them.

Increasing the impact on mortality reduction compared to the expected impact of each intervention alone. By combining interventions that act by different mechanisms, the impact on mortality can be maximized.

Example: Improving breastfeeding practices can reduce the incidence of diarrhoea and pneumonia. Supplementation with vitamin A can prevent complications of measles. Hib vaccination will prevent Hib pneumonia. Measles vaccine will prevent measles. Combining improved breastfeeding, supplementation with vitamin A, Hib vaccine and measles vaccine will reduce the incidence of diarrhoea and pneumonia, prevent measles and its complications, and will prevent Hib pneumonia.

Figure 20

Intervention packages for improving child health

	Universal packages (recommended in all settings)	Situational packages (where warranted)
Care during pregnancy	Antenatal care: Tetanus toxoid immunization Birth and emergency planning Detection and management of complications Detection and treatment of syphilis	Intermittent preventive therapy (IPT) for malaria Sleeping under insecticide-treated bednets Provention of mother to
	Information and counselling on self-care, nutrition, safer sex, breastfeeding, family planning for birth spacing	child transmission of HIV
Care during labour, birth and 1-2 hours after birth	Skilled care at birth: Monitoring progress during labour Social support (companion) during birth Immediate newborn care (resuscitation if required, thermal care, hygienic cord care, early initiation of breastfeeding) Emergency obstetric and newborn care: Detection and clinical management of obstetric and newborn complications	Prevention of mother-to- child transmission of HIV
Postnatal/ Newborn care	Routine postnatal care of mother and newborn: Exclusive breastfeeding Thermal care Hygienic cord care Extra care of LBW infants Prompt care-seeking for illness Immunization Management of newborn illness	Prevention of mother-to- child transmission of HIV
Care during infancy and childhood	 Community case management of diarrhoea, pneumonia, malaria and malnutrition IMCI (first-level health facilities): Algorithm-based management of diarrhoea (with ORT and zinc), pneumonia, malaria, malnutrition and newborn illness; care for HIV-exposed and HIV-infected children IMCI (referral facilities): Management of severe infant and child illnesses Community IMCI: Community mobilization and communication to promote: Exclusive breastfeeding Safe and appropriate complementary feeding starting at 6 months with continued breastfeeding Hand washing and proper disposal of faeces Care-seeking for preventive interventions (e.g. vaccines) Home care for illness Care-seeking for illness EPI: Delivery of essential vaccines 	Sleeping under an insecticide-treated bednet to prevent malaria Prevention of HIV Care of HIV-exposed and HIV-infected children Vitamin A supplementation

Figure 21 describes one initiative in Africa where packaging child health interventions improved the coverage and equity of selected interventions.

Figure 21

Accelerated Child Survival and Development (ACSD)

The use of integrated child health packages to improve intervention coverage

ACSD is a UNICEF child-survival initiative that started in 2001 in four countries in West Africa (Benin, Ghana, Mali and Senegal) with the aim of reducing under-five mortality in high-mortality areas. The interventions were delivered as integrated packages:

- EPI-plus: immunization, vitamin A supplementation and de-worming.
- <u>IMCI-plus:</u> distribution and promotion of insecticide-treated bednets (ITN), ORT for diarrhoea, antimalarials for fever presumed to be malaria, antibiotics for pneumonia, and promotion of exclusive breastfeeding and complementary feeding.
- <u>ANC-plus:</u> intermittent preventive therapy for malaria during pregnancy, iron and folic acid supplementation and the use of ITNs for pregnant women.

Three service delivery approaches were employed with the aim of increasing intervention coverage for women and children.

- Outreach and campaigns to deliver immunization, Vitamin A, antihelminths and selected prenatal services.
- Community-based promotion of a package of family health, nutrition and hygiene practices carried out primarily by volunteers.
- Facility-based delivery of an integrated minimum care package consisting of all the selected priority interventions, with particular emphasis on case management of childhood illnesses.

In addition, five crosscutting strategies were used to support facility-based service delivery:. advocacy, social mobilization and communication for behaviour change; service delivery at community level; district-based monitoring and micro-planning; integrated training; and improved supply systems.

ACSD was implemented intensely in 16 districts in Benin, Ghana, Mali and Senegal, between 2001 and 2005. A large-scale retrospective impact evaluation of ACSD conducted by The Institute for International Programs at Johns Hopkins University Found that the approach increased coverage for preventive interventions, such as immunization, relative to national comparison areas in Ghana and Mali. In Mali, ACSD implementation was associated with reduced inequities in coverage of essential interventions, especially for ANC services delivered through an outreach strategy. Under-five mortality decreased in ACSD districts in Benin, Ghana and Mali over the implementation period. However, mortality declines in Benin and Mali were not significantly different than those experienced in the national comparison area; no comparison data were available in Ghana.

The evaluation concluded that efforts to scale-up approaches similar to ACSD will need to emphasize: 1) national policies that support strategies to increase access to treatment for childhood diarrhoea, malaria and pneumonia, such as community case management, 2) better alignment between resource allocation and the causes of child deaths, 3) greater attention to improving child nutrition, 4) greater attention to preventing deaths in the neonatal period, 5) reinforced efforts to ensure continuous availability of essential commodities, and 6) improved supportive clinical supervision.

3.3 Coverage and equity

The concepts of coverage and equity are guiding principles for planning child health programmes. The desire to reach as many members of the target population as possible, that is, to achieve a high level of coverage, should drive all health-care planning. At the same time, planners must be mindful to address equity of coverage.

Equity in health care means that there should be no avoidable or remediable health-related differences among populations or groups defined socially, economically, demographically, or geographically. There should be no differences in health status, coverage, or access to the resources needed to improve and maintain health. Children that are most likely to experience health inequities include children of poor or marginalized groups, and children of racial and ethnic minorities. Child health programmes must plan activities to remedy and prevent inequities in implementing interventions.



EXERCISE B – Review intervention packages and the continua of care

- 1. Complete the table below.
 - For each intervention, specify the package in which the intervention could logically be implemented (refer to Figure 20 on page 31 if needed).
 - Then place a tick to indicate the **most important level** at which implementation of the package could logically take place (home and community, first-level health facility, or referral facility). The first is done for you.

Intervention(s)		Intervention	Most important level for implementation of package (tick column)		
		package (s)	Home and community	First-level health facility	Referral facility
a) Case of pr	e management neumonia	IMCI		~	
b) Care pneu	e-seeking for umonia				
c) Mea	sles vaccine				
d) Han	dwashing				
e) Scre syph	ening for iilis				
f) Imm newl	ediate born care				
g) Give to ch diarr	e zinc and ORS hildren with hoea				
h) Slee insee bedr	p under an cticide-treated net				
i) Extra infar	a care of LBW hts				
j) Man obst com	agement of etric plications				

2. Although packaging seems to be a reasonable approach to implementation, some programmes are not yet implementing interventions in packages. What challenges have you faced packaging interventions?

3. Are there groups or populations that experience inequities in health in your country? Who are they?

What are the current efforts to reach them?

When you have completed this exercise, discuss your work with a facilitator.

4. Definitions of terms

In order to plan and manage programmes, you need to understand some terms that are commonly used. This section discusses the following terms:

- 1. Goals and objectives
- 2. Activity-related indicators
- 3. Population-based coverage indicators
- 4. Impact indicators
- 5. Targets

An indicator is a measurement that is repeated over time to track progress.

Some terms have different connotations to different people, or may be defined differently in some organizations' planning schemes. This section describes how the following terms are used **in this course**, so that we may all have a common vocabulary for learning about planning and management of programme implementation.

4.1 Goals and objectives

Programmes need to define clearly their ultimate goals (what the programme is going to achieve in the long term) and their objectives (what the programme is going to achieve in the shorter term, in order to reach the goals). Indicators are used to measure what the programme is accomplishing.

Goals

Goals are long-term improvements in child survival and health that are expected by a programme. For example, the Millennium Development Goal for child health is:

• To reduce child mortality

Goals are desired changes in childhood nutritional status, morbidity or mortality and may take 5–10 years or longer to achieve. All child health interventions implemented by the programme are directed at achieving the programme's goals.

Objectives

Objectives are based on the interventions that will be implemented by the programme and the progress expected in the short or medium term. An objective of any child health programme is to increase the proportion of the target population who receives an intervention (the population-based **coverage** of the intervention). For example:

- To increase the proportion of infants under 6 months who are exclusively breastfed
- To increase the proportion of children with diarrhoea who receive ORT

A programme could have additional objectives, such as to reduce inequity in coverage of interventions, or to increase quality of care. For example:

- To increase the coverage of treatment for diarrhoea, malaria, and pneumonia among the poorest children.
- To improve the quality of health care provided to children under age 5 years at firstlevel health facilities.

Some countries quantify their objectives, such as:

• To increase the proportion of infants under age 6 months exclusively breastfed from 50% (in 2008) to 65% in 2011.

If objectives are not met, then it is unlikely that goals for reductions in child morbidity and mortality will be met.

4.2 Activity-related indicators

Programme activities are the work that is done to implement interventions. Activities are planned and conducted for a reason, such as to increase the availability or access of services to the target population, to improve the demand for the services, to improve the quality of the services provided, or to increase the knowledge of families and communities regarding child health.³ Most activities will affect one or more of these aims. Indicators that measure the completion of activities or the results of activities are called activity-related indicators in this course. (Some documents call these "process indicators" and "output indicators.")

Programmes will track indicators of **whether** planned activities were implemented and the **extent** of completion. They may track the number completed, or the proportion of the planned activities that were completed. For example:

- Proportion of planned IMCI training courses for first-level health facility workers that were conducted
- Proportion of the planned number of CHWs that were recruited and trained to promote key family and community practices
- Proportion of planned supervisory visits that were completed last year

Activity-related indicators may also describe the **results** of activities, that is, improvements (or declines) in availability or access to the service, demand for the service, quality of the service, or knowledge of families and communities regarding child health. For example:

- Proportion of health facilities that have at least 60% of health workers caring for children trained in IMCI
- Proportion of primary health facilities that provide basic emergency obstetric and newborn care (24 hours/day, 7 days/week)
- Proportion of first-level health facilities that received a supervisory visit in the previous 6 months
- Proportion of villages in the district that have a CHW trained to provide education on key family and community practices
- Proportion of newly-trained CHWs who conducted 10 or more household visits to promote key family and community practices in the previous month

³ Specific definitions of availability, access, demand, quality, and knowledge of families and community are provided in the glossary at the end of this module and are described in more detail in *Module 2: Planning Implementation*.

Data to measure many activity-related indicators may be collected from programme records as a part of monitoring. However, indicators of the **quality** of care provided at health facilities are measured by a special health facility survey. A health facility survey measures whether health workers provide a service correctly to the target population when children or their caregivers are seen in health facilities. For example, it can measure indicators such as:

- Proportion of sick children attending health facilities who need an antibiotic and/or an antimalarial who are prescribed the medicine correctly
- Proportion of caregivers of sick children prescribed ORS and/or an antibiotic and/or an antimalarial at a health facility who can describe correctly how to give the treatment
- Proportion of children who need immunizations who leave the facility with all needed immunizations

4.3 Population-based coverage indicators

Population-based coverage is the proportion of the target population (children, their caregivers, or pregnant women) that need an intervention in a given geographic area who receive the intervention. The denominator of a coverage indicator is the number of the target population living in the geographic area⁴. These materials emphasize that programmes should direct their activities towards providing interventions to as many children as possible, including all geographical and social subgroups in an area. High levels of population coverage will be key indicators of an effective programme. Examples of population-based coverage indicators (in a given geographic area) include:

- Proportion of children with suspected pneumonia who received an antibiotic
- Proportion of children under 6 months of age who are exclusively breastfed
- Proportion of children aged 12–23 months who are fully immunized
- Proportion of newborns protected against tetanus
- Proportion of deliveries (pregnant women giving birth) attended by a skilled birth attendant

Population-based coverage must be measured in a community/household-level survey, which will provide the best measure of how well interventions are reaching the target population. A coverage target is a specific and quantified statement of an expected improvement in a population-based coverage indicator (see 4.5 below).

4.4 Impact indicators

The impact of a programme is the change in child health or survival that results from improved coverage of the population with effective interventions.

Impact is the ultimate purpose of a child health programme – what you hope to achieve in the long term. Expected impact changes are programme goals. An impact indicator is stated as a

⁴ Some organizations also use the word "coverage" to describe the proportion of health facilities that provide a particular service, or the proportion of the population that live within a specified distance of a health facility that provides a particular service. These materials limit the definition of coverage to the proportion of the target population that receives the service/intervention.

measurement of morbidity, mortality, or nutritional status and has as its denominator the target population in the country, region or province, etc. For example, impact indicators would be:

- Under-five mortality
- Under-five mortality due to measles
- Proportion of children under 5 years of age who are low weight-for-age (underweight)

Significant and measurable changes in such indicators are expected over periods of 5–10 years or longer. Impact indicators are measured using large-sample household surveys, which allow mortality rates to be calculated.

Figure 22 provides examples of different possible indicators related to one intervention.

Figure 22

Example indicators		
Impact indicator:	Under-five diarrhoea-related mortality	
Population-based co	overage indicator:	
	Proportion of all children under age 5 years with diarrhoea in the district who received ORT	
Activity-related indi	cators:	
	Proportion of IMCI training courses planned for health staff in the district that were conducted	
	Proportion of health facilities that have at least 60% of health workers caring for children trained in IMCI	
	Proportion of children under age 5 years who came to a health facility sick with diarrhoea who received ORT and other appropriate treatment	

4.5 Targets

A target is a quantified statement of **desired change** in a key indicator over a given time period in a specified geographic area. Evaluation compares the target and actual level of achievement after the given period of time, to determine whether or not the programme is being implemented effectively.

Fig	ure	23
i ig	arc	20

Example targets
Health impact target in a country:
• By 2012, reduce under-five mortality by 10%.
Coverage (population-based) targets in a region:
• By the end of 2009, 85% of infants will be put to the breast within one hour of birth.
 By the end of 2009, 60% of children aged 6–9 months will receive appropriate breastfeeding and complementary feeding.
 By the end of 2009, 80% of children under age 5 years with suspected pneumonia will receive antibiotics.
Activity-related targets in a region or district:
 By the end of 2009, 80% of villages will have at least one CHW trained in infant feeding counselling.
 By the end of 2009, 75% of caregivers will know the definition of exclusive breastfeeding and its benefits.
 By the end of 2009, 80% of all first-level health facilities will have all essential oral medicines available.
 By the end of 2009, 60% of children seen at health facilities who need an antibiotic or an antimalarial will be prescribed the medicine correctly.

A programme will revise and add to its targets as it adds new activities. However, the list of targets should never become too large. A limited number of targets should be selected and should be kept simple – they must be useful for planning activities and resource needs and be useful for evaluation.



EXERCISE C – Review planning terms and concepts

1. Decide whether each indicator is an activity-related, coverage, or impact indicator and place a tick in the appropriate column.

Indi	cator	Activity-related indicator (completion of activities or results of activities)	Coverage indicator (target population receiving the intervention)	Impact indicator (health status)
a)	Proportion of health workers scheduled to be trained in IMCI who were trained in IMCI			
b)	Proportion of children under age 5 with diarrhoea who were given ORT			
c)	Proportion of children under age 5 who are wasted			
d)	Proportion of children under age 5 who sleep under an insecticide-treated bednet			
e)	Proportion of children under age 5 visiting a health facility because of diarrhoea who are assessed and treated correctly			
f)	Proportion of health facilities with at least 60% of health workers who manage sick children trained in IMCI			
g)	Proportion of caregivers who know 2 signs to seek care immediately			
h)	Proportion of facilities with all essential vaccines available			
i)	Proportion of planned CHW training sessions completed			
j)	Proportion of villages with a trained CHW			
k)	Proportion of women whose last baby was delivered by a skilled birth attendant			
I)	Proportion of children under 6 months of age who are exclusively breastfed			
m)	Infant mortality rate			

2. Read the phrase in the left column of the box. Then choose the phrase from the right column of that box that will best complete the sentence. Draw a line to connect them.

•	A population-based coverage indicator	 Is measured with a health facility survey.
•	An impact indicator	 Must be measured with a large- sample population survey.
•	A quality of care indicator	 Is measured with a community-lever survey.
•	An indicator of population- based coverage with pneumonia treatment	 Has as a denominator the planned activities
•	An indicator of the quality of care for pneumonia at facilities	 Has as a denominator the number children in the geographic area wh had pneumonia.
•	An indicator of planned activities	 Has as a denominator the number children who came to a health facil

•

- "In 2010, 80% of children who come An example target for improvement in populationto a facility needing an antibiotic or antimalarial will be prescribed the based coverage with an medicine correctly." intervention is "In 2010, 75% of villages will have a An example of a target for • improving quality is CHW trained to give standard pneumonia case management."
- "In 2010, 95% of children will be fully An example of a target for • vaccinated by one year of age." improving access is

When you have completed this exercise, discuss your work with a facilitator.
Annex A

Rights of the child: Definitions and indicators

Rights of the Child – Definitions

Convention on the Rights of the Child (CRC): This is the legally binding document adopted in 1989 that sets out fundamental freedoms and inherent rights of all children. The convention contains social, political, economic, and cultural rights, including the right to health. Ratifying governments are obliged to respect, protect and fulfil these rights. They must also submit periodic reports to the Committee on the Rights of the Child on the status of child rights in their country. Many ratifying governments have passed legislation and mechanisms to ensure the realization of the CRC.

Committee on the Rights of the Child: Article 43 of the Convention on the Right of the Child (CRC) calls for the establishment of a specific monitoring mechanism, namely the United Nations Committee on the Rights of the Child. The responsibility of the Committee is to examine how far states have gone in meeting their commitments under the CRC, the progress made and the difficulties that have been encountered. When a state ratifies the CRC, it enters a continuous cycle of monitoring and reporting to the Committee on the capacity of children and adolescents in a state to enjoy their rights.

Structural Indicators: These indicators examine whether the mechanisms and structures necessary for the realization of the right to health are in place. These are often framed in a yes/no format. Structural indicators are rooted in the norms and principles of the Convention on the Rights of Child. (For example, does state legislation explicitly recognize children's right to health? Does the state have a plan/strategy to disseminate information on child health to vulnerable groups?)

Rights of the Child – Indicators

Key areas of measurement for assessing the status of child rights include:

Structural indicators of the policy and legal environment, including whether the country has:

- Ratified the Convention on the Rights of the Child
- Included the right to health in the constitution
- Recognized the right to universal health care for children in legislation
- A national human rights institution that oversees child health
- A national policy/strategy for child health
- A strategy for disseminating information on child health to the population in a way that ensures that all risk groups are reached effectively

Measures of morbidity and mortality, including:

- Trends over time
- Variations between sub-groups by: geographic area, ethnic group, gender etc.

Measures of coverage with key child health interventions, ensuring that:

- Effective child health interventions are included.
- Implementation is done collaboratively with partners and stakeholders at all levels.
- Strategies include all stages of the continuum of care between pregnancy, delivery, the early newborn period, infancy and childhood in order to maximize impact on overall morbidity and mortality.

Annex B

References: General child health

References: General child health

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Glossary

(defined as used in these modules)

access	.the extent of caregivers' ability to reach and use health services, when they are available. Possible barriers to access include distance, finances (unable to afford costs of transport, goods or services), culture (husband or other family members may not agree for women to take their sick children to a health facility on their own), or time limitations.
activity	.work (a group of tasks) that is done to implement interventions
activity-related indicator	a measurement of completion of an activity or the result of activities that is repeated over time to assess progress.
availability	.the extent that the health services (preventive and treatment) are available to those who need them. For example, the availability of counselling on breastfeeding (preventive service) can be improved by training health workers on breastfeeding counselling. The availability of treatment services can be improved by increasing the opening hours of the clinic, by increasing the number of health workers available to run the clinic, and by ensuring regular supplies of necessary medicines.
continuum of care	.uninterrupted sequence of care
	The continuum of care for mother and child includes care during pregnancy, through birth, the newborn period, infancy, and childhood.
	The continuum of care across the health system includes care in the home and community, first-level health facilities and referral facilities.
coverage	.proportion of the target population in a geographic area that receives an intervention. Intervention coverage is the proportion of children under 5 (or their caregivers, or pregnant women) in the population who needed the intervention and have received it. Coverage is a population-based indicator, usually measured in a community/household survey.
coverage indicator	a measurement of how well interventions are reaching the target population that is repeated over time to assess progress. The denominator of a coverage indicator is the target population in a geographic area.
demand	motivation to seek and make use of the health services. Improved demand indicates that clients have knowledge of the

	availability and benefits of the services and are motivated to use them.
effective	proven to have impact on health status (morbidity, mortality or nutritional status) when used under programme conditions
efficatious	.proven to have impact in controlled research settings
equity	in health care, no health-related differences among populations or groups defined socially, economically, demographically, or geographically; specifically there should be no differences in health status, coverage, or access to the resources needed to improve and maintain health.
evaluation	the process of assessing a programme's status, achievements, and impact in order to detect and solve problems and plan future emphases
first-level health facility	a facility that provides basic preventive and treatment services, such as standard case management and immunization, as well as counselling and referral, and is considered the first facility within the health system where the population in the area seeks care. A first-level health facility may be a health centre, clinic, rural health post, dispensary, or outpatient department of a small hospital.
goal	.long-term improvements in child health and survival that a programme aims to do or achieve, for example, to reduce child mortality by two-thirds between 1990 and 2015.
health facility survey	a method of data collection in which surveyors visit a representative sample of outpatient health facilities to ask a series of standard questions and make observations to investigate the quality of care received by sick children and their caregivers attending first-level health facilities. In the WHO Health Facility Survey, health workers are observed and their practice is compared to the IMCI clinical standard to determine whether sick children are managed correctly. The survey measures key indicators of the quality of health worker practices and the availability of facility supports that are required for quality practice, such as supervision, essential medicines, vaccines and supplies. Interviews with caregivers and health workers are often included also.
community survey	a method of data collection in which surveyors visit a representative sample of households to ask a standard series of questions to measure intervention coverage (such as with treatment of diarrhoea or pneumonia, or exclusive breastfeeding) and other indicators of caregivers' practices (such as feeding practices, and actions taken by families when children are sick)

	Small-sample household surveys can also measure activity- related indicators in the population, such as availability of immunization and case management services, access to insecticide-treated bednets (ITNs), and knowledge of families about child health-related practices.
	Large-scale household surveys, usually undertaken at the national level, are required to calculate mortality rates for children under age 5, infants, and neonates. Commonly conducted large-scale surveys include the DHS survey (<u>http://www.measuredhs.com</u>) and UNICEF MICS3 survey (<u>http://www.childinfo.org/mics/mics3</u>) which require extensive resources.
impact	change in childhood mortality, morbidity or nutritional status as a result of programme(s) activities
impact indicator	a measurement of morbidity, mortality, or nutritional status that is repeated over time to track progress
implementation plan	an operational plan that describes how the priority interventions will be delivered and what activities and resources will be required in the next 1–2 years.
indicator	a measurable number, proportion, percentage, or rate that suggests or indicates the extent of a programme's achievement or the level of some condition among the population; a measurement that is repeated over time to track progress
infant	child from birth up to age 1 year; infancy is the period from birth up to age 1 year
intervention	treatments, technologies, and key family practices that prevent or treat illness and reduce death. Child health interventions are treatments, technologies, and key family practices that prevent or treat child illness and reduce deaths in children under age 5 years.
intervention package	several interventions that are implemented together. For example, routine postnatal care of mother and newborn is a package that includes the following interventions: exclusive breastfeeding, thermal care, hygienic cord care, essential immunizations, extra care of low-birth-weight infants, and prompt care-seeking for illness.
knowledge (of families and communities related to	
child health)	information that caregivers know about the appropriate home care practices during health and illness, as well as when and where to seek care outside the home. Educational,

	communication and counselling activities aim to improve this knowledge.
monitoring	regularly checking to see that programme activities are being carried out as planned. Programmes monitor implementation to identify and solve problems so that activities can be implemented effectively.
newborn	a child from birth up to age 28 days; same as neonate
objective	the desired result that a programme aims to achieve in the shorter term, in order to achieve its goals. For example, objectives of a child health programme would be to increase coverage of specified interventions. It may also have additional objectives such as to increase quality of care at first-level health facilities, or to increase coverage of the poorest children.
percentage	a part of a whole expressed in hundredths. If 50% of a population is female, it means that 50 out of 100 people are female. The following examples show different ways of expressing the same value as a percentage, a decimal fraction, and a fraction: $50\% = 0.50 = 50/100$; $4\% = 0.04 = 4/100$
population-based	an indicator in which the denominator is all the population or all of the members of a subgroup of the population in the geographic area, such as all children under age 5 years in the district, all infants in the district
proportion	the relation of one part to a whole. When written as a fraction, the numerator signifies the part, and the denominator signifies the whole, for example, 2/3, 1/2. Proportions also can be written as a decimal fraction or percentage if the whole is expressed in hundredths, for example, 0.17 or 17%.
quality	a standard for how health services are provided. Good quality services are provided according to technical standards, and in a way that is appropriate for the target population. Increasing the quality of a service often increases demand for it.
referral facility	a health facility that provides high-level care such as the management of obstetric complications or the management of severely ill children.
stakeholders	those who have a 'stake' or an interest in child health and child health programmes. They can be individuals, organizations, or unorganized groups. Stakeholders may include: international actors (e.g. donors, cooperating partners), national or political figures (e.g. legislators, governors), local governments (e.g. mayor, city council), public sector agencies, local community and traditional leaders, medical/nursing associations, academic institutions, commercial/private for-profit organization (e.g. pharmacies), nonprofit organizations (e.g. NGOs, foundations),

	community-based organizations (women's groups, mother's groups), faith-based organizations, schools and teachers, health-care workers, users of health services, community members.
strategic plan	a plan that provides a framework to guide a programme for the next 5–10 years. It usually specifies goals and objectives, targets, priority interventions, and gives overall guidance for implementation and financing to achieve the programme's goals.
supervision	overseeing or watching over an activity or task being done by someone and ensuring that it is performed correctly. Supervision of health staff includes observation of practice, assessing conditions in the health facility, giving feedback with guidance or training if needed, and giving support.
target	a quantified statement of desired change in a key indicator of programme implementation over a given time period in a specified geographic area. Targets can be set for impact, coverage, and completion or results of activities.
target population	the group who an intervention is designed to help. The target population for antenatal care is pregnant women. The target population for IMCI is children less than 5 years of age.